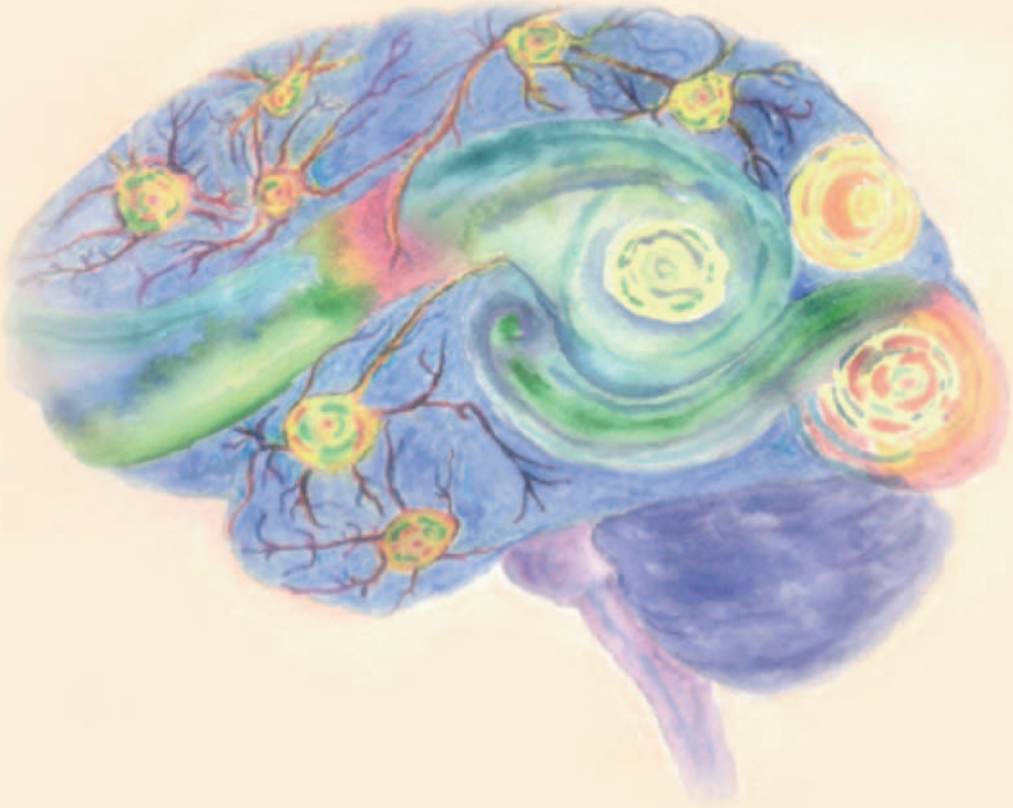
# THE SCIENCE OF
# DREAM INTERPRETATION



Frederick L. Coolidge

# The Science of Dream
# INTERPRETATION

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# The Science of Dream INTERPRETATION

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To the memories of my father Paul L. Coolidge and my mother Dolores J. Coolidge who always encouraged my academic interests and always bought me any book I wanted.

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# Biography

Professor Frederick L. Coolidge has a BA, MA, and PhD in Psychology from the University of Florida (UF) and completed a 2-year Postdoctoral Fellowship in Clinical Neuropsychology at Shands Teaching Hospital, Gainesville, Florida. He worked as Forensic Psychologist at the South Florida State Mental Hospital before beginning his academic career at the University of Colorado, Colorado Springs (UCCS). He has received three Fulbright Fellowships to India (1987, 1992, and 2005), and in March 2015, he was appointed Senior Visiting Scholar at Oxford University (Keble College). He has received two UCCS research awards, three UCCS teaching awards, and awarded the title University of Colorado Presidential Teaching Scholar. While an undergraduate at UF, he worked as a lab assistant in a NASA-sponsored sleep research laboratory. He continued working there as a graduate student and published his master's thesis, *Paired Associate Learning during EEG-defined Sleep* in 1972. For his PhD dissertation, he built his own sleep lab, borrowing a used EEG machine from his old laboratory and using the back sides of used EEG paper. His dissertation topic was determining the effects of Stage 4 (delta wave) sleep and REM sleep upon verbal and visual memory. He subsequently published articles on the dreams of terminal cancer patients and people with the recurring dream of losing their teeth. Beginning in 2000, he began delving into the evolutionary origins of sleep and dreams, and in 2006, he and archaeologist Thomas Wynn published an article on the cognitive effects of the tree-to-ground sleep transition, which occurred about 2 million years ago. They noted that sleeping on the ground in large groups probably released pressures against REM (dream) sleep that subsequently aided memory consolidation, enhanced memory, and helped regulate the processing of emotions. Professor Coolidge has published over 145 journal articles, over 50 book chapters, and presented over 230 conference presentations. *The Science of Dream Interpretation* is his 13th book.

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The author would like to thank his wife Patricia Germer-Coolidge for patiently listening to every word of this manuscript and providing suggestions, insights, and encouragement throughout. He would also like to thank his brother Thomas J. Coolidge who has shared his dreams throughout their lifetimes. Whether by phone call or on camping trips together, what a great way to start a day, "Hey, bro, let me tell you what I dreamt about…"

**-Frederick L. Coolidge, Colorado Springs CO**

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# Author note

According to psychologist Alfred Adler, our lives are often framed around our earliest memories. My earliest memory was a nightmare. At about the age of two, I dreamt my aunt, my father, and I were driving in my father's Ford and trying to go around the rear entrance of a hospital where my brother had just been born. In my dream, my aunt sat with me in the back seat. We drove by a jumble of trash cans, parked the car, and then walked down a long corridor. We sat on a hard bench waiting for my mother and new brother. While in college, a psychology professor asked us to recall our earliest memory, and I recalled that dream. I called my mother shortly after and asked her about my recollection. Indeed, she said, my father drove around the back of the hospital where the garbage was placed. My aunt did accompany my father, and we did wait in a long corridor lined with benches.

As an undergraduate at the University of Florida, I worked in a NASA-sponsored sleep laboratory for 3 years. I then built and ran my own sleep laboratory for 4 years while in Florida's Psychology PhD program. My masters' thesis determined the feasibility of learning a foreign language during sleep (which I published in the *Australian Journal of Psychology* in 1972). My doctoral dissertation examined the relationship between various sleep stages and verbal and nonverbal memory (which I presented as a paper to the American Psychological Association convention in 1979). After my PhD, I completed a 2-year Postdoctoral Fellowship in Clinical Neuropsychology, and I briefly worked as a Forensic Psychologist for the state of Florida in a maximum security mental hospital.

I am presently a Professor of Psychology at the University of Colorado, Colorado Springs. A while ago, one of my students (whose father was an oncologist) brought me the dreams of 14 terminally ill cancer patients, up to 1 month before their death. She and I analyzed these dreams, and we published the study in *Omega: The Journal of Death and Dying* in 1983. A short time later, another student told me he had the recurring dream that his teeth were falling out. We examined the literature and found the dream to be at least 2000 years old. We then examined the personality characteristics of other college students with that same dream and published that study in *Psychological Reports* in 1984. In 1999, I presented a workshop at the American Psychological Association annual convention entitled, *Dream*

*Interpretation as a Psychotherapeutic Technique*. In 2006, I copublished a paper in the journal *Before Farming: The Archaeology and Anthropology of Hunter-Gatherers* where we claimed that the first major leap in human cognition occurred when *Homo erectus* (one of our most distant ancestors) began sleeping on the ground instead of in trees around 2 million years ago. We argued that sleep on the ground allowed for more uninterrupted sleep and increased dream (REM) sleep. Those two sleep changes not only better consolidated memories but also likely enhanced them. In 2010, I copublished an article in *Behavior Genetics* establishing the heritable basis of nightmares in children. Because of these varied experiences and research, I am able to present the interpretation of dreams from a broad scientific yet clinical perspective. Thus, I find that my earliest memory, a dream, has continually interwoven with my interests throughout my life.

**F. L. C.**

# CHAPTER 1

# An introduction to dream interpretation

> *[With respect to dreams] You can stop smoking, you can create a new machine, a painting, a sonata, or a new religion. You can change your life. You are free, I suppose, to do something or to do nothing at all. It is your dream. In dreams begin responsibilities.*
>
> *E. Hartmann (1998, pp. 248–249)*

The purpose of this book is to help you interpret your dreams, and it is also written for mental health professionals as a guide to interpret dreams in counseling and psychotherapy. The self-analysis of one's dreams is certainly possible and so is practicing dream interpretation techniques with a friend or relative. And, of course, the interpretation of a person's dreams by a therapist may have additional benefits. Thus, this book is designed primarily for anyone who wishes to use dream analysis as a self-reflective technique, as anyone, properly motivated, can gain insights and benefit from exploring the meaning of their dreams. However, this book begins with an important caution: There is no standard glossary of dreams meanings. Dreaming of a lobster may have vastly different meanings to a lobster fisherperson, a vegan, an artist, or anyone else. There can be no common meaning for a particular dream image among people. It may be useful here to invoke psychiatrist Carl Jung's (1964) caution:

> *… it is plain foolishness to believe in ready-made systematic guides to dream interpretation, as if one could simply buy a reference book and look up a particular symbol. No dream symbol can be separated from the individual who dreams it, and there is no definite or straightforward interpretation in any dream. Each individual varies so much in the way that his [sic] unconscious complements or compensates his conscious mind that it is impossible to be sure how far dreams and their symbols can be classified at all (p. 53).*

It is, however, a basic premise of this book that a personal meaning or meanings can be drawn from a dream, and further, those interpretations can lead to additional insights. The meaning of dreams and their interpretation stretches back almost as far as written history. The first of them (that we

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have knowledge of) is an Egyptian text dating back about 5000 years, where this practice of having a standard book of dream image meanings probably began. Interestingly, ancient Egyptians often had the tradition of interpreting any negative dream as a positive omen and any positive dream as a negative omen. Egyptian dream interpretation will be discussed in much greater detail in Chapter 3.

The history of dream interpretation has also been fraught with frauds, charlatans, and completely unscientific and unethical practices. It will be the underlying philosophy of this book to provide the reader with a scientific foundation for the ethical interpretation of dreams. And again, I wish to highlight this important point: It is unethical to interpret dreams with a standard glossary of meaning. There is no scientific basis whatsoever for having universal dream meanings.

Although stated earlier that anyone could benefit from dream self-analysis, it seems reasonable to assume that one could gain additional benefits from dream analysis with a psychotherapist. It is a well-established phenomenon in psychology that dreams can symbolize deeper meanings, unconscious issues, and conflicts. It is thought that ego defenses may change these issues into dream images and stories. However, these same ego defenses while awake may prevent people from becoming conscious of their underlying issues. A psychotherapist who uses ethical (i.e., a non-glossary approach) dream interpretation techniques may help people face difficult issues, ones that they might avoid on their own, or even ones of which they may not even be consciously aware of, yet these issues may influence their daily lives.

This book may be conceived of as having five main sections. After the introduction, the first section provides a biological foundation for the scientific nature of sleep and dreams. The second section provides a historical, cultural, and religious background for dream interpretation. As noted earlier, there are dream interpretation books dating back about 5000 years or more. Some of earliest written records, of any kind, contain reports of dreams. Dreams have also played a fascinating history in many major religions including the Jewish religion, Buddhism, Christianity, Islam, Hinduism, and others. History is also replete with reports of God speaking through dreams, and this topic will be discussed later in greater detail. The third section of this book will cover frequently asked questions about sleep and dreams, such as troubled sleep, like insomnia and nightmares, and whether dreams can predict the future. The fourth section will cover psychology's most influential dream theorists: Sigmund Freud, Carl Jung,

and Fritz Perls. A summary of their dream interpretation techniques will also be provided at the ends of those three chapters. Finally, the fifth section will provide a synthesis of dream interpretation techniques mentioned in the book, and numerous examples will be offered of how dreams may be interpreted.

## Myths of dream interpretation: A dream glossary

Throughout this book, the ethical psychological interpretation of dreams will be stressed. There are a plethora of books and internet sites that contain dream interpretation glossaries but none have any scientific merit. Dream book glossaries may be entertaining, and interestingly they have ancient historical roots but they have no scientific basis. See Fig. 1.1 for the cover of a 1931 dream glossary book.

As noted earlier, it is a premise of this book that trained dream interpretation therapists are probably better at getting at underlying psychological issues in dreams than people can obtain by interpreting dreams on their own. Further, experienced psychotherapists are probably better at

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Dream Book
POLICY PLAYER
AND
Fortune Teller...
PHOENIX PUBLISHING COMPANY
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KING TUT DREAM BOOK
AND
FORTUNE
TELLER
From the papyrus found in the tomb of King Tut. A copy of the original of Amen Thah, soothsayer of Ptolmey, founder of the dynasty of Athor.
Joseph, the interpreter of Pharoah's dreams, had access to this.
Adah, the Priestess of Isis, compiled it.
Cleopatra consulted it and finding the doom of her dynasty foretold, killed herself.
The true interpretation of dreams, with the numbers that they signify
AND A GENERAL DICTIONARY OF THE MEANING OF DREAMS

**Fig. 1.1** King Tut dream book. *(Source: Frederick L. Coolidge.)*

handling the unconscious issues that may arise in dream therapy and trouble the conscious dreamer. Experienced dream interpreters with proper therapy training may be able to see through ego defenses and make connections between events and issues that individuals on their own could not or would not see or make. The last chapter of this book will present elaborate examples of techniques that dream interpretation therapists may use to uncover unconscious and semi-conscious issues, and thus, this book may be viewed as dream interpretation training manual.

## Psychology: The field of dreams

Psychology is probably one of the most appropriate fields to host studies of dream interpretation. Certainly other disciplines, like biology, chemistry, and evolutionary sciences contribute to the greater understanding of dreams but psychology, since its inception, has been a natural base for the study of dreaming and dream interpretation. Wilhelm Wundt (1804–99), a German psychologist, has often been credited with founding the scientific discipline of psychology in 1879. What did Wundt have to say about dreams? Wundt (1896) believed that dreaming was a kind of temporary insanity. Dreaming is a hallucination, he wrote. He believed dreaming gave the normal person a glimpse of what a mental disturbance would be like. He dismissed premonition dreams as baseless. And vivid dreams, Wundt thought, were most often caused by indigestion. As for the general physiological nature of sleep, Wundt correctly thought it vital and originating from the central nervous system.

William James (1842–1910), an American psychologist, wrote *Principles of Psychology*, published in 1890. He is often credited with either co-establishing psychology along with Wundt or establishing psychology in America. In his epic textbook, he had only one reference to dreams, and it is a mere footnote. Nevertheless, he was much more sympathetic to the psychological meaning of dreams than Wundt. James wrote that dreams might give us a glimpse of the "spiritual world." He noted that dreams throughout history have been considered divine revelations and often furnish us with mythologies and religious themes. Dreaming, he believed, was the other half of our "larger universe." The natural world consisted of our waking perceptions, and our supernatural world consisted of our dream images, and together, they form our larger universe.

John B. Watson (1878–1935), another American psychologist is credited with being the founder of the behavioristic paradigm (an emphasis upon only observable behavior). One would not expect a behaviorist to be

sympathetic to dreaming, but surprisingly, Watson was. In his 1919 textbook, *Psychology from the Standpoint of a Behaviorist*, he stated that dream analysis often reveals emotional tensions, and he wrote:

> *Dreams are a part of a person's sum total of reactions. They are as good indicators of the nature of his [sic] personality, of his stresses and strains and emotional life generally, as are any of his other activities (p. 209).*

## A contemporary sleep/dream theorist: Ernest Hartmann

One of Austrian-American sleep researcher Ernest Hartmann's (1934–2013) earliest works was *The Biology of Dreaming* (1967), in which he emphasized the physiological nature sleep and dreams. In 1998, he published a book, *Dreams and Nightmares*: *The Origin and Meaning of Dreams*, where he proposed his "new" theory of dreaming where he disagreed with Freud that all dreams are wish fulfilling and disagreed with those who viewed dreams as random or meaningless. Actually, Freud recanted his claim that all dreams are wish fulfilling when he listened to the terrifying dreams of WWI veterans, but I'll go into much greater detail on Freudian dream theory in Chapter 4.

Importantly in his book, Hartmann also firmly stated there is no glossary of meaning for dreams. He did believe that dreaming connects many different thoughts. In that regard, he believed it may not be completely different than waking consciousness in that we also make connections between different thoughts and ideas while we are awake. However, he thought that dreaming allows us to make more creative and broad connections than when we are awake. He thought that dreaming tends to avoid well worn, "tightly woven or overlearned regions of the mind." He believed that this process of connecting was not random, but it was guided by the emotions and emotional concerns of the dreamer. He saw dreams as providing a context for the emotion, and in his own words, he said, "dreaming *contextualizes* emotion." Part of this contextualization, he believed, was the ability of dreaming to note subtle similarities and to create metaphors for our emotional states. Thus, dreams may create stories based on our emotions and psychological issues. Finally, Hartmann believed that the contextualization process served a definitive purpose. By integrating new waking thoughts and ideas into our dreaming consciousness, dreaming helps us to become aware of problems, may help us solve them, may help us to be creative, and may calm emotional storms.

When I saw Hartmann give a public lecture many years ago at an American Psychological Association convention, he impressed me with a final thought. "In dreams begin responsibilities," he said. He told us that he liked the vagueness and uncertainty of the statement, and he attributed the saying to the Irish poet W. B. Yeats, who gave the saying an even earlier attribution. Hartmann questioned whether it was to be interpreted as referring to our dreams when we sleep or whether it was to be applied to our daydreams and imaginings. He noted (1998), however, that if one had a big, powerful dream, one could sit back and simply say, "Wow, what a fascinating dream I had," and he added:

> *You can stop smoking, you can create a new machine, a painting, a sonata, or a new religion. You can change your life. You are free, I suppose, to do something or to do nothing at all. It is your dream. In dreams begin responsibilities (pp. 248–249).*

Clinical psychologist Clara Hill (1996) published a more detailed dream interpretation book about the same time as Hartmann's work. I am in complete agreement with her assertions that dreams are a great way of establishing rapport with a patient and an excellent way of quickly focusing attention to core psychological issues. We are also in agreement that dreams often reflect waking life issues and dream meanings are probably better understood by a collaboration between a therapist and patient. I also endorse her idea that dream interpretation can lead to important core conflicts more quickly than conventional therapeutic techniques, as patients can often be completely aware of the symptoms of their anxiety, depression, or distress, but unaware of either the immediate causes for their troubles and/or unaware of the unconscious issues that may cause their symptoms. Hartmann and Hill are also in agreement that the emotions that are aroused by dreams are often contextualized by the dreams literally or metaphorically.

Interestingly, despite the great therapeutic possibilities that dreams possess, it is more common than not that psychotherapists receive little or no training in dream interpretation, or they think only extensively trained Freudian psychoanalysts or extensively trained Jungian analysts can effectively deal with dreams in therapy. First, psychotherapists may receive little or no familiarity with the interpretation of dreams because their professors most likely had little or no training with dream interpretation. Second, dream interpretation does not require extensive Freudian or Jungian training. Indeed, it is one of the main purposes of my book to provide the

information and techniques required to be not only comfortable with discussing dreams in psychotherapy but to be successful interpreting them as well. It is also important to note at the outset that I differ from Hill's dream interpretation techniques in that once I have achieved a successful association between some dream and some conscious or unconscious issue, I am finished with the dream. For me, that's where therapy begins and dream interpretation ends and should end! Certainly, a single dream may hold a multitude of themes and issues. However, once I have achieved my goal of quickly and efficiently raising an issue to the patient's consciousness, I am done with the dream. To me, it may amount to a kind of voyeurism on the part of the therapist. The therapist's chief job is to discuss the patient's issues and come to some insight or resolution. As Freud (1923) wrote, "where Id was, Ego shall be." Once a clear unconscious issue (Id) has been brought forth in therapy to go back to the dream is unnecessary in my opinion. Yes, dreams are fascinating, frightful, and very often have compelling and interesting story lines. But that is *not* the purpose of dream interpretation in therapy. The purpose of my dream interpretation techniques is to bring to consciousness (Ego) a waking issue or unconscious issue. When this goal has been achieved, therapy should start and no further probing of a dream is necessary. As Freud also suggested, the purpose of psychoanalysis was to strengthen the ego.

More recently, sleep researcher Matthew Walker (2017) approached sleep and dreams from a broad perspective, which included its physiological nature and the need for good sleep. Although he did not give advice or prescriptions on how to interpret dreams, which is the important purpose of my book, he did claim there is a therapeutic value of good sleep and dreams. He cited evidence that sleep, particularly dreaming (rapid eye movement sleep or REM), helps people to remember the important parts of a dream that are relevant to their waking life. In this fashion, he claimed dreaming helps to solve past and future problems. Walker also noted another critical aspect of dreaming in that it helps forget trivial details from our lives, and it helps remove the negative emotional reactions to events in our lives, as was proposed by Hartmann earlier. Tononi and Cirelli (2014), as will be explained in greater detail in Chapter 2, hypothesized that the brain's neuronal connections are strengthened when subjected to learning while we are awake, yet these neurons are under cellular stress while doing so. When asleep, they proposed that the neurons are "renormalized" and achieve a homeostatic balance such that these brain networks may learn again. Their study does provide physiological support for Hartmann and

Walker's claims about some of the functions of dream sleep. Also see Ribeiro (2021) for a more recent review of the history, and physiological and psychological functions of sleep and dreams.

As noted earlier, this book will provide the reader with an introduction to the current understanding of the biological nature of sleep and dreams, their historical significance, and as an aide to interpreting dreams, this book will present a distillation of the important dream interpretation techniques of psychology's three most influential dream theorists: Sigmund Freud, Carl Jung, and Fritz Perls. Most importantly, this book will provide a synthesis of Freud, Jung, and Perls' dream interpretation techniques, and numerous examples will be provided to demonstrate how their techniques may be used to interpret dreams.

## Summary

1. There is no glossary of meaning for dream images. People vary, and their conflicts and issues vary. The meaning of dreams varies from person to person.
2. Dream interpretation has a rich and ancient history (see Chapter 3).
3. Dream interpretation is probably more efficient and beneficial when conducted by trained therapist and a client, yet the self-analysis of dreams can be valuable.
4. Dreams may provide a context for our emotions.
5. Dreams may help to store relevant information, delete irrelevant information, and help to mitigate negative emotions, which may make us better able to cope with future problems and social interactions.
6. The purpose of dream interpretation in therapy is to bring to attention unconscious issues. Once an unconscious has been brought forth from a dream, dream interpretation stops and therapy begins.
7. In dreams begin responsibilities. We can use our dreams as we would our waking thoughts and ideas: learn to tango, take French or guitar lessons, learn to paint or sculpt, travel to an island or mountain, explore, or do nothing at all.

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# CHAPTER 2

# The evolutionary, biological, and cognitive foundations of sleep and dreams

*If sleep doesn't serve an absolutely vital function, it is the greatest mistake evolution ever made.*

**Allan Rechtschaffen (1971, p. 88)**

## The evolution of sleep and dreams

It is obvious that sleep does serve vital functions, and evolution did not make a mistake. However, evolution does have many starts, stops, and dead ends, as it is estimated that 99.9% of all once living species have gone extinct. The problem, since sleep and dreams as a behavior have obviously persisted, is what vital functions does sleep serve? It is safe to state that sleep and dreaming may have evolved for many reasons, and it also appears that newer functions for sleep and dreams may have been added to its initial evolutionary adaptive value. The originally evolved functions are called adaptations. These newer functions are called *exaptations*.

All life on earth developed in a 24-h, light-dark cycle (circadian rhythm) because the earth rotates on its axis completely every 24 h (actually every 23 h and 56 min). Sleep can be defined as a periods of quiescence, immobility, and a lack of intentional contact with one's environment, but it also includes responses to internal stimuli. If wakefulness is defined as periods of activity, mobility, and responses to internal and external stimuli, then virtually all animals exhibit a sleep-wake circadian rhythm. Further, virtually all living organisms, including animals, plants, fungi, and even bacteria, have adapted their physiological processes to this circadian cycle. However, it cannot be concluded that all living organisms sleep, as some bacteria appear to be in a constant state of varying activity. See Rihel (2020) for a fascinating review of animal sleep (including jellyfish, worms, insects, and others).

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Primitive sleep states probably developed from the natural light-dark cycle, where it constrained activities to periods of light and inactivity to dark periods. Primitive sleep states were also probably constrained by seasons, where activity was more likely during warm seasons and inactivity (i.e., hibernation) during cold seasons. Of course, as soon as such environmental niches (suitable places) were established, some organisms reversed these patterns in order to improve feeding and mating activities or avoid predation. Perhaps primitive sleep states can be traced back to the first swimming metazoans, simple flatworms, appearing about 545 million years ago. Studies with roundworms like *Caenorhabditis elegans* show that they have resting states akin to sleep during molting (Raizen et al., 2008), whereas studies with fruit flies (*Drosphilia melanogaster*) finds alternating activity-rest periods (Cirelli & Bushey, 2008). During their 'quiet' periods, fruit flies are more difficult to arouse, and just as in mammals, there is individual variability in their sleep-wake-rest cycles (chronotypes), with consistent variation in gene expression as the driving force for metabolic activities and chronotypes. As fruit flies are descendants of insects (land-bound crustaceans), which date back at least 400 million years, it can be assumed that many of the fundamental features of modern human sleep were in place at least 500 million years ago.

It is known that modern reptiles, which began evolving about 300 million years ago, have sleep-wake cycles. Their brains do exhibit a deep-sleep state similar, but not identical, to the slow-wave sleep (SWS) of mammals and primates. The similarity is the high arousal threshold during this state of sleep; however, modern reptiles do not show the modern SWS in humans with their slow EEG waves of about 1–3 Hz (Hz) and their large amplitude waves. Every extant bird species show SWS and rapid eye movement (REM) sleep, and because birds evolved from dinosaur-like reptiles about 250 million years ago, then these two fundamental sleep characteristics were in place even before the evolution of mammals about 200 million years ago. All mammals have well-defined SWS and REM sleep, although it is possible that the evolution of these two sleep stages evolved independently of the deep sleep (SWS) of reptiles.

Because mammals have an enlarged cortex (such that it was labeled *neocortex*) and hippocampus compared to reptiles, it is possible that the evolution of SWS and REM sleep was due to their more sophisticated cerebral cortex, with its thicker, six-layered surface compared to the thinner, three-layered surface of reptilian brains. Evolutionary biologist J. Lee Kavanau (2002) has proposed that the evolution of SWS and REM sleep

accompanied the evolution of warm-bloodedness which arose in mammals. His hypothesis relies heavily on the importance of organisms to learn and store new information (memory), maintain memories, and reinforce links between old and new memories. This expanded neocortex in mammals gave them much greater behavioral flexibility compared to the more reflexive reptiles, although both animals required physiological systems that supported learning and sustained memories. That these learning and memory support systems coevolved in response to light-dark cycles is not at all surprising.

The environments that impelled the evolution of wakefulness required sustained attention, sensory and perceptual processing, new learning, and the appropriate recall of memories to solve novel problems, in other words, highly efficient brain functioning. The conditions of rest or inactivity may have evolved initially as an *adaptation*, which conserved metabolic energy and acted as a defense mechanism against the dangers of nocturnal activity. The evolutionary value of this primitive sleep state, which itself may have made an animal more vulnerable to predation, had to have exceeded the fitness costs (liabilities) of inactivity. Thus, the *exaptation* of this primitive resting state to its use in the processing of newly learned information, its storage, and its integration with previous memories helped the organism exceed the vulnerability associated with a resting state.

Kavanau (2002) further proposed that REM sleep, which is accompanied by fast cortical brain waves (i.e., >15 Hz) and voluntary muscle paralysis (muscle atonia), may have evolved in warmed-blooded animals when muscle contractions were not needed for thermoregulation. This occurs when ambient temperatures are approximately equal to an animal's core temperature, e.g., twilight and dawn. Further, according to Kavanau, fast cortical waves, which also accompany wakefulness, help to bind and reinforce memories in a "coordinated" fashion. The waves in SWS, he proposed, reinforce memories in an "uncoordinated" way and in a fashion where intentional thinking is suppressed and any recall of unsynchronized and unreinforced thoughts is essentially meaningless. This may be observed in human sleep subjects, who, when awakened from SWS, invariably deny dreams or coherent thoughts.

Kavanau proposed that dreaming arose from REM sleep from the uncoordinated reinforcement of memory circuits during SWS and the coordinated reinforcement of memories during REM sleep. Thus, the coordinated reinforcement of memories during REM becomes the phenomenon of "dreaming" during REM. Because modern human sleep patterns are characterized by SWS followed by increasingly longer periods

of REM throughout a sleep period, Kavanau thought that this sequence of non-REM and REM cycles must have had further learning and memory benefits associated with his hypothesized uncoordinated reinforcement of memories followed by coordinated reinforcement of memories.

## Biological foundations of sleep

### Sleep stages

There are currently two systems for the classification of sleep stages. The older system consisted of a restful yet awake stage (stage 0), four non-REM stages (stages 1 through 4), and REM (Rechtschaffen & Kales, 1968). The newer system collapses the four non-REM stages into three by combining stages 3 and 4 into non-REM three stage (see American Academy of Sleep Medicine [AASM]; 2014 for additional details). In the following discussion, I shall amalgamate the two systems (with AASM designations in parentheses). See Fig. 2.1 for sleep brain wave examples.

### Stage 0 (W or wakefulness)

Humans and other animals most start their sleep period by resting with their eyes closed. On an electroencephalogram (EEG; a machine that measures

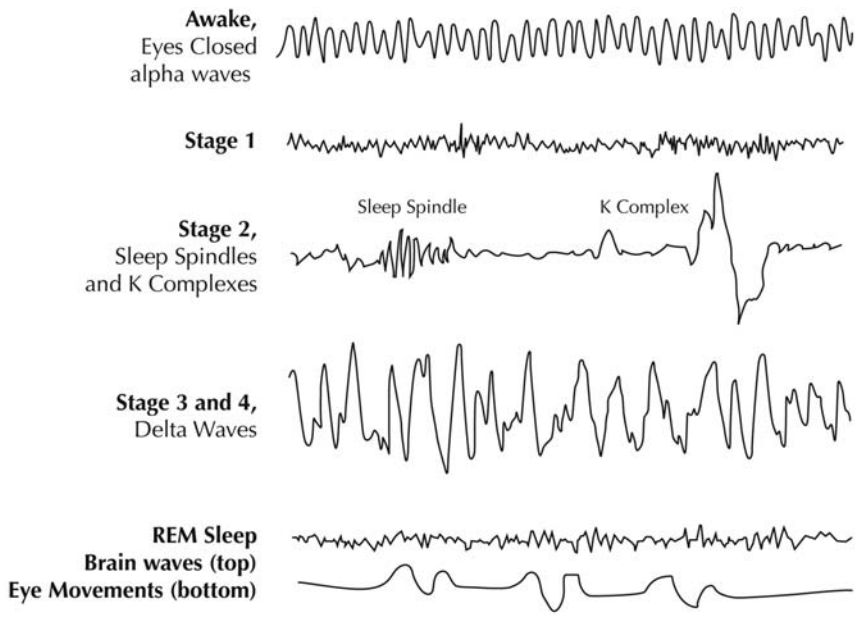


**Fig. 2.1 Sleep stages**. *(Source: Holly R. Fischer, MFA.)*

the miniscule electrical waves from the brain), a relatively high amplitude and semisymmetrical wave (alpha) appears, and these waves vary among humans from about 8 to 12 Hz (within a single person, the wave frequency will be consistent). Alpha waves were first described in 1920s by German psychiatrist Hans Berger, who is also credited with inventing the EEG. Alpha is measured by electrodes placed on one's head/skull, and they are the clearest when the electrodes are placed over the back of the skull (occipital lobes; also known as the primary visual cortex). Because alpha is usually detected when a person is resting or day-dreaming, alpha has come to be associated with restful states of consciousness like meditation, and thus, its designation *stage 0*. Interestingly, about one-third of people do not produce alpha while resting with eyes closed, which makes claims that the alpha wave is indicative of only a resting state very specious. Also dubious are claims that inducing alpha states through biofeedback is akin to creating restful states. There are no good explanations of why some people do not naturally produce alpha waves. However, those people deemed "alpha dominant" are preferred for sleep studies because it can be more easily determined when they actually enter a sleeping state. Most alpha-dominant humans will have some bursts of alpha throughout the night of a few seconds or more, which indicates they have briefly awakened. As people age, these periods of wakefulness between stages of sleep will become more frequent. It is important to note that all humans (alpha-dominant or not) will have these short periods of wakefulness (a few seconds, more or less) throughout a sleep period. Therefore, recommendations from psychologists that state one should not stay in bed during these brief awakenings, but get up and do something else, is clearly bad advice. Remaining relaxed in bed during these periods will almost guarantee sleep within seconds or a few minutes.

### Stage 1 (N1)

Stage 1 is usually the first and the lightest (easiest from which to awaken) of the sleep stages. It accounts for about 10%–15% of the total normal human sleep period. Stage 1 consists of theta (4–8 Hz), beta (12–30 Hz), and gamma (25–100 Hz) waves, which are usually of low amplitude, irregular, and desynchronized (mixed frequencies) waves. All of these waves occur during wakefulness, which is one of the reasons stage 1 is considered a transition stage from wakefulness to sleep.

One interesting phenomenon during the onset of sleep in nearly all primates is the *hypnic* or *hypnagogic jerk*, which is a sudden reflexive muscle movement that frequently awakens the sleeper. Although the ultimate

cause of the hypnic jerk is unknown, a common hypothesis is that it is an archaic reflex to the brain's misinterpreting the muscle relaxation accompanying the onset of sleep as a signal that the sleeping primate "thinks" it is falling out of a tree. The reflex may also have had the fitness benefit of having sleepers readjust or review their sleeping position in a nest or on a branch, thus ensuring against a fall (Coolidge, 2006).

### Stage 2 (N2)

Stage 2 is also considered a light stage of sleep with waves similar to stage 1. It is also the most prevalent stage of sleep, accounting for about 50%–55% of total human sleep. Two additional waves are characteristic of stage 2, sleep spindles and K-complexes. Sleep spindles have a slightly higher frequency (13–16 Hz) than alpha waves (8–12 Hz), and they appear once or twice every minute in bursts of 1 to 2 sec. The other distinctive stage 2 wave is a K-complex, which consists of a single large negative deflection followed by smaller positive ones. K-complexes can occur during wakefulness but usually only in response to some external stimuli, and sometimes external stimuli during stage 2 sleep also elicit sleep spindles. Spindles appear to originate from the thalamus (a deep brain structure), while K-complexes appear to arise as an interaction between the cortex and thalamus. It is suspected they both play a role in memory consolidation and in keeping a person asleep.

### Stage 3 and stage 4 (N3)

Stage 3 and Stage 4 have been combined in the AAMS system, and this combined stage is synonymous with SWS. It is called SWS because of the appearance of delta waves (0.5–3 Hz), which are the slowest frequency of all brain waves and have the highest amplitude. Delta wave activity dominates this stage (greater than 50% during a 1-min period). The SWS stage accounts for about 15% of total human sleep, and as noted previously, it has been observed in all mammals, birds, and in some fishes and some reptiles. In humans, a large majority of SWS occurs during the first third of sleep period. SWS is also considered the deepest stage of sleep because it is during this stage that all animals (including humans) exhibiting it have the highest arousal threshold. Interestingly, many marine mammals, like porpoises, exhibit only SWS in one hemisphere while the other hemisphere is awake. In humans, studies have consistently shown that when awakened during SWS, nearly all sleepers deny any dreams, vivid or otherwise.

During SWS, the parasympathetic system (part of the autonomic nervous system, which controls vegetative functions like digestion) dominates,

and the gastrointestinal system becomes more active. The cardiovascular system slows, with decreases in heart rate, blood pressure, and respiration. In humans, the percentage of SWS decreases across the lifespan, and the decrease is greater in men than women (Moser et al., 2009). Whether this decrease in SWS is associated with variations in cognition, learning, or memory is not known, but a potential relationship is intriguing.

### REM (R)

Until 1953, it was assumed there were only these first four stages of sleep with stage 1 accounting for about 33% of the total sleep period. Working in a University of Chicago sleep lab at that time, researchers Eugene Aserinsky and Nathaniel Kleitman were aware of early studies (~1922) reporting slow, rolling eye movements. Therefore, they placed electrodes above and to the side of each eye's orbit in 20 adult subjects. They observed four distinct periods of this eye-rolling throughout the sleep period, and they awakened the sleepers during these periods. They found that in about 75% of the awakenings, the sleepers reported "detailed dreams usually involving visual imagery" (Aserinsky & Kleitman, 1953, p. 273). Subsequently, Aserinsky and Kleitman were credited with the discovery of REM sleep. Further, although the cortical activity during the REM periods was similar to stage 1 sleep (low amplitude, high frequency waves), such that it was first called stage 1-REM, researchers came to realize it was a distinctly different stage of sleep.

Physiologically, REM sleep does not appear to be restful. Heart rate and blood pressure fluctuate greatly. In men, REM is accompanied by penile erections (regardless of dream content), and women have a similar genital response. Thoughts, fleeting images, and ideas may occur in most sleep stages (although rarely in SWS), but highly detailed visual images, stories, and themes are almost exclusively associated with REM sleep. In human infants, REM sleep may account for up to about 75% of a total sleep period, but by adolescence the percentage drops to about 20%–25%. This percentage remains fairly stable throughout the remaining lifespan, although it declines only slightly after 60 years old. Phylogenetically, REM sleep is most prevalent in terrestrial mammals and birds, although it has been observed in some lizards. Thus, REM's origins may be traced back at least 200 million years if not earlier, perhaps to the ancestors of some extant reptiles. The platypus, an aquatic mammal, has the highest percentage of REM sleep of all animals, about 33%. Monkeys and related primates, who diverged from our mammal lineage about 40 million years ago, spend about 5%–20% of their total sleep in REM. Chimpanzees, who diverged from

our lineage about 6 million years ago and are our closest living animal relative, spend about 20%–25% of their sleep in REM, which is very similar to humans.

One interesting characteristic of REM sleep is its accompanying muscle atonia (loss of muscle tone or muscle "paralysis"). French sleep researcher Michel Jouvet and his colleagues (Rampin et al., 1991) explored the role of inhibitory neurons on voluntary muscle systems in preventing dreams being acted out by sleepers. They also proposed that REM sleep helped to preserve the integrity of one's psyche, perhaps in part, from the devastating psychological effects of REM deprivation studies in humans and other animals. Morrison (1983) demonstrated that selective destruction of these inhibitory neurons allowed cats to act out predatory actions, which presumably represented the content of their REM dreams. There are numerous anecdotal reports of people becoming aware of this muscle paralysis during REM sleep, and their accompanying dream themes often reflect the interpretation of muscle atonia, such as being paralyzed by aliens or being crushed by ghosts. Wing et al. (1994) found that over 93% of 603 Chinese undergraduate students had heard of the ghost oppression dream and 37% claimed to have experienced it. It has also been hypothesized that one of the most common themes of adult dreams, falling, may in part occur because of the sleeper's interpretation of the complete muscle atonia that accompanies the onset of REM sleep (e.g., Van de Castle, 1994). The other suspicion, of course, is that the falling dream theme is connected to our arboreal primate origins, as falling out of a tree was an event that an early primate should not have taken lightly nor have easily forgotten (e.g., Sagan, 1977). Some modern sleep researchers have even called it a third state of consciousness, postulating wakefulness, sleep, and REM sleep. This trinity is actually an ancient one: early Hindu writings depicted *vaiswanara* (wakefulness), *prajna* (dreamless sleep), and *taijasa* (dream sleep).

It has also been suggested that reports of alien abductions and alien experiments upon the abducted are REM dreams accompanied by muscle atonia (Coolidge, 2006). Studies of people who report alien abductions are often no different on any standard measures of personality than those who do not report them. They appear only to differ in their strong belief in the existence of aliens. In my opinion, Freud was right: *some* dreams are wish-fulling (Freud, 1900/1965 [he claimed all dreams were wish-fulfilling but later modified that stance]). Interestingly these alien abduction reports are invariably said to have occurred during the night (when people are most likely sleeping and dreaming). Thus, it may be that people who report alien

abductions are having their wishes fulfilled by such dreams, and their paralysis during the alien experiments may be explained by the muscle atonia during REM. I shall not speculate further when their reports often include aliens probing their genitalia or other orifices.

As noted earlier, marine mammals, like porpoises and whales, unlike terrestrial mammals, do not exhibit REM sleep. One suspicion is that REM sleep has been likened to an alarm clock-like mechanism, where SWS induces heavy, deep sleep, and REM sleep evolved to wake an organism up, because it is accompanied by vivid thoughts and a storm of physiological activities. Thus, marine mammals would not need REM sleep because one of their hemispheres is always awake. Interestingly too, since this alternative hemisphere sleep will result in visual neglect of one visual field, porpoises usually move side to side in their pod for blind-side protection.

## Major theories of why organisms sleep

*Reduced Energy Demands*. It is important to reiterate that sleep and particularly its dramatically different stages have evolved for more than one reason. Thus, it can be said that its evolution has been overdetermined. It is therefore misleading to ask, "What is the purpose of sleep?" because the question implies there is only one reason. Even if there was a single evolutionary purpose for sleep, it would likely have changed over the 600 million years of animal life evolution.

One popular theory of why organisms sleep is that it reduces energy demands. An organism that operates continually, without rest, has greater energy requirements than one which has periods of rest. There are species which do not rest, like most species of sharks, but their continual activity comes at a cost. Their cortices, which normally would have greater metabolic needs than other types of tissue, are extremely small for the volume of their bodies. This makes sharks highly reflexive animals, and sharks whose cortices have been carefully ablated (surgically removed) can still swim, breathe, and feed for many days before dying. Some air-breathing sea mammals (like porpoises and whales) have much larger brains (for their body size) than sharks making them much less reflexive. Further, they have managed to evolve a system to allow their expensive metabolic brain's two hemispheres tissue to alternately sleep and be awake.

The two animal lineages that have informed modern human brains the most, mammals (with the exception of porpoises, whales, and seals) and

primates, have both SWS and REM sleep. It does appear that the lighter stages of sleep (about 50% of a sleeping period) do appear to involve fewer metabolic demands, so their evolution is consistent with the reduced energy demands hypothesis. However, REM sleep in most all species requires a greater expenditure of energy than the other stages, and SWS coincides with energy expenditures involving digestion. However, as will be discussed shortly, there may be other evolutionary advantages of REM sleep that outweigh its increased energy costs and the increased vulnerability to predation that accompanies REM sleep muscle atonia.

*The Facilitation of Learning and Memory by Sleep*. In a classic sleep study, two Cornell University professors (Jenkins & Dallenbach, 1924) demonstrated that the memory for a list of words was superior after a period of sleep than after a period of wakefulness. They concluded that, "Little is forgotten during sleep, and, on waking, the learner may take up the task refreshed and with renewed vigor" (p. 611). They also interpreted their findings as forgetting being a matter of "interference, inhibition, or obliteration" (p. 612) during waking and the protection of learned material during sleep. Subsequent empirical studies supported their findings, however, many of these studies used a sleep deprivation paradigm, which is problematic because the observed memory disruption may have been solely due to sleep deprivation and not because of some more intimate connection between the stages of sleep, the sequence of stages, or the integrity of single sleep period. Studies over the past 3 decades or more have demonstrated clearly that there is a profound relationship between sleep, learning, and memory, and indeed, sleep not only consolidates memories but enhances them as well (e.g., Diekelmann & Born, 2010; Siegel, 2009; Tucker et al., 2016; Walker, 2017). Sleep may also prune or eliminate irrelevant recent memories from further storage, allowing only more relevant and pertinent memories access to long term storage (Stickgold & Walker, 2013).

Early research in this area revealed that REM might only enhance procedural memories (like motor movements, visual and spatial skills, and musical skills [fingering sequences]; e.g., Brawn et al., 2010; Tucker et al., 2016; Walker, 2005; Winson, 1990). However, there is now solid evidence that REM, SWS, and their pattern of sequencing during sleep consolidate and enhances declarative memories (verbal learning) as well (e.g., Diekelmann & Born, 2010; Marshall & Born, 2007).

Stickgold and Walker (2013) proposed that a sleep-dependent memory triage exists such that memories created during waking are subsequently chosen for offline (sleep) processing based on their waking "salience tags."

That hypothesis is consistent with the idea that memories (especially of an episodic nature, like picture story memories with who, what, where, and when characteristics) are a strong function of their emotional valence. Specifically, if a word, thought, idea, or experience is emotionally arousing, either based on its inherent nature, one's motivation, or one's arousal level, then that memory will persist. If the memory lacks those properties, it will most likely be forgotten (e.g., Coolidge, 2019, 2020). According to Stickgold and Walker, memories that are selected and reactivated during sleep join other recently formed memories and integrated such that "de novo knowledge [is created] beyond that available from individual item memories" (p. 144). If they do not join other memories, then they proposed that the "sleep-dependent processing may be limited to the comparatively straightforward consolidation and enhancement of the recently encoded item-memory itself" (p. 144). Evidence for this de novo knowledge, and even creativity, comes from studies by Cai et al. (2009), Wagner et al. (2004), and others.

*The Hobson and McCarley Activation-Synthesis Hypothesis*. In 1977, Hobson and McCarley proposed a neurophysiological explanation for REM sleep. They called their model an *activation-synthesis hypothesis* which proposed that dreams do indeed represent an active model of the brain during sleep; however, this activation is not necessarily evolutionarily advantageous; in fact, they said, dreams are essentially meaningless and random. They proposed that an area of the brainstem known as the pons gives rise to electrical spikes that create REM sleep by randomly stimulating the areas of the brain above the brainstem (called the forebrain). These spikes begin in the pons, continue to the lateral geniculate nucleus, and then finally reach the visual cortex (occipital lobes). Thus the spikes are called PGO spikes, for pons-geniculate-occipital. When the forebrain is confronted by the resulting bizarre array of random visions and thoughts, it attempts to synthesize them into a coherent or semicoherent story. However, because the storm of pontine spikes has randomly stimulated the forebrain, dreams usually end up more likely to be semicoherent or even incoherent and full of distortion.

The Hobson and McCarley hypothesis was provocative (which is one of the purposes of a good theory) but it served up a storm of protests. In fact, I had a vivid dream about this time where I dreamed I was wandering the halls of a research hospital, the walls and floors of which were lined with soft mashed potatoes. As I saw myself walking through the mushy hallways, I knew in the dream that this was a ridiculous concept, but I trudged

through the halls nonetheless. The opponents to their theory argued that even if it was pontine spikes that stimulated cortical thoughts, there still might be valid and, perhaps, hidden reasons for what people ultimately dream about. For example, I might be stimulated to dream about hospitals and mashed potatoes, whereas a former colleague of mine told me she dreamed of a Vietnamese frog without legs. Hospitals and mashed potatoes are in my cortex, and Vietnamese frogs without legs are in her cortex. I did not dream her dream, nor she mine. My intuition tells me that our choices, although strange and bizarre, *are still not random*. Hobson and McCarley's theory does provide a physiological explanation for REM sleep and an explanation for the seemingly bizarre or incoherent content of dreams. However, it fails miserably as an informal test of intuition: that is, does it seem at all reasonable, given all of our own experiences with dreaming, that dreams are random and meaningless? I don't think so.

By 1988, Hobson had tempered his original views about the meaninglessness of dreams. In his book *The Dreaming Brain*, he proposed that dreams do actually provide clear and meaningful themes along with conflictual issues that may be of value to the dreamer. He agreed with Jung that dreams have transparent meaning, and he disagreed with Freud that dreams have a latent or hidden meaning. In Hobson's (1994) book, *The Chemistry of Conscious States*, he carried his analysis of dreams even further by likening dream states to mental illnesses. For example, he saw the anxiety caused by nightmares as similar to panic disorders, the visual images in our dreams as similar to visual hallucinations that occur in psychoses, and the poor memory that we have about our dreams as akin to the forgetting that occurs in Alzheimer's disease. In fact, Hobson argued even more strongly that dreams are not models of mental illness. He said, "Dreaming is not a *model* of a psychosis. It *is* a psychosis. It's just a healthy one." Thus, Hobson argued that understanding the "root cause" of dreaming will help us to understand the "genesis" of psychotic states. He also provided an analysis of dreams by means of a mental status examination, which is a short intake interview upon admission to a hospital to establish a patient's general cognitive functioning. To me, it was weakly argued and a poor analogy. However, it is interesting to note that Hobson was reinforcing Wundt's (1896) much older view of dreaming as a kind of hallucinatory insanity and that dreams gave us a view of what a mental disturbance would be like.

Recently, Hobson et al. (2021) updated his activation-synthesis hypothesis. In his modified model, Hobson and his colleagues attempted to account for other altered states of consciousness besides sleep, like various

types of psychopathology (schizophrenia) and brain dysfunction (epilepsy). They also promoted the dual aspects of an objective brain and a subjective brain, and they again acknowledged the "psychotic nature" of REM-dreaming and the propensity in dreams for hallucinations and delusions. They also emphasized the unconscious mind-brain nexus as being a predictive model of the world rather than a Freudian model where dreams expressed wishes. Also see Revonsuo (2000) and Franklin and Zyphur (2005) for a more elaborate explanation of this predictive ability of dreaming later in this chapter.

*Winson's Memory-Processing Hypothesis.* Winson (1990) established that a *theta rhythm* of 6 Hz arises from the hippocampus of awake animals in specific and important functions, such as exploratory behavior in rats, a fear response resulting in rigidity in rabbits, and predation in cats. Furthermore, these behaviors are not rigidly genetically encoded like feeding and procreation, but occur in response to changing environmental circumstances. Because the role of the hippocampus has been well documented in establishing the permanence of memory in both people and animals, he reasoned that the theta rhythm might be the cause of permanent memory transformations. He also found the same theta rhythm in REM sleep in rats, and the same neurons of the hippocampus fired during REM sleep that had fired while the rats were awake and learning a maze. Because exploratory behavior in rats appears critical to their survival, Winson argued that the purpose of REM sleep might be to process and strengthen this critical information.

Winson offers another line of evidence for his theory from evolution. The spiny anteater is a unique egg-laying mammal (called a monotreme). The spiny anteater does not have REM sleep and appeared to diverge from other mammals like marsupials and placentals about 140 million years ago. The spiny anteater also has the largest prefrontal cortex in relation to the rest of its brain of any mammal, even people. Winson argues that the spiny anteater needs this large prefrontal cortex to store new and crucial information and to be able to make decisions based on previously stored information. However, in order to develop even more sophisticated capabilities, a new storage mechanism is needed beyond that of simply adding more space (like increasing the size of the cortex). Thus, Winson (1990) wrote:

> *REM sleep could have provided this new mechanism, allowing memory processing to occur 'off-line.' Coincident with the apparent development of REM sleep*

> *in marsupial and placental animals was a remarkable neuroanatomical change: the prefrontal cortex was dramatically reduced in size. Far less prefrontal cortex was required to process information. That area of the brain could then develop to provide advanced perceptual and cognitive abilities in higher species. (p. 94)*
>
> *With the evolution of REM sleep, each species could process the information most important for its survival, such as the location of food or the means of predation or escape — those activities during which theta rhythm is present. In REM sleep this information may be accessed again and integrated with past experience to provide an ongoing strategy for behavior. (p. 94)*
>
> *Dreams may reflect a memory-processing mechanism inherited from lower species, in which information important for survival is reprocessed during REM sleep. (p. 94)*

Winson's theory is provocative and compelling. It does not, however, adequately take into account why infants and children spend 50% of their time in REM sleep nor why after the age of about 2 years REM sleep remains constant across the lifespan. Furthermore, the same theta rhythm of hippocampal origin has not been found in humans or any other primates, to date.

*Sleep and the Synaptic Homeostasis Hypothesis*. Tononi and Cirelli (2014) hypothesized that sleep is the price a brain pays for its neural plasticity. They proposed that neuronal synapses are strengthened while awake by learning and the formation of memories. However, this strengthening of synapses places extra demands on the neurons involved and their supporting glial cells (the brain consists of about equal numbers of neurons and glial cells). As a result, the brain's cells are under "cellular stress" (p. 12) during learning and memory periods. During sleep and its disconnection from the external environment, synaptic strengths are thought to renormalize, which restores their subsequent ability to learn and enhances signals in signal-to-noize ratios. In support of their theory, others have demonstrated that a multitude of genes change expression during sleep and during particular stages (such as REM) in humans and a variety of the other species (e.g., Mikhail et al., 2017; Ribeiro et al., 1999; Zhang et al., 2014).

Further support for their theory that sleep is the price paid for neural plasticity comes from the finding that sleep and the percentage of REM sleep is greatest during the period of life when neural plasticity is at its greatest, that is, infancy and early childhood. Interestingly, this increase in REM sleep is also seen in young chimpanzees, our closest (DNA-wize) living relatives.

Sleep and its differing stages also appear to remove metabolites (a cell's waste products) that accumulate during wakefulness (Xie et al., 2013). Xie and his colleagues argued that it is sleep that facilitates this clearance. However, the nature of the metabolites varies, as some are toxic and some, like adenosine (among its other cellular functions), induce sleep. Herculano-Houzel (2015) hypothesized that sleep-inducing metabolites depend upon neuronal density and a brain's total surface area. She also predicted that such brain changes (i.e., increasing neuronal density and increasing surface area) helped decrease the percentage of sleep and increased feeding activities in both mammalian and *Homo sapiens*' evolution. Again, however, it is important to note that sleep's architecture is over-determined, and ratios of sleep to wakefulness are much more likely to be a function of multiple factors.

Finally, it is important to note that the differing sleep stages, their sequencing, and periods of wakefulness are clearly regulated by the instructions provided by one's DNA. Thus, as will be discussed later in Chapter 7 on troubled sleep, sleeping well or badly is a heritable trait (particularly for the tendency to have nightmares; Coolidge et al., 2010). It is also equally obvious that environmental factors, such as temperature, diet (excessive caffeine), stress, war, and other catastrophes, can affect the quality of one's sleep.

## Cognitive consequences of sleep and dreams

*Priming*. Cognitive priming effects are said to occur when prior exposure to a stimulus enhances later recognition and performance, regardless of whether there was conscious recognition of the stimulus. Thus, I believe that another reason for the evolution of sleep is the priming and beneficial effects of the thoughts and dreams that occur during sleep and in REM, even though the contents of these thoughts might be "imaginary." Finish psychologist Antti Revonsuo (2000) proposed a *threat simulation hypothesis*, which assumed that one major biological function of dreaming was to simulate threatening events. He found support for his hypothesis from the preponderance of children's scary dreams, nightmares in children and adults, dreams after trauma, and the heightened aggression dreams of modern hunter-gatherers. He thought the environment of ancestral humans was "short and full of threats" (p. 793), therefore, any advantage that might be gained from *rehearsing* these threats in dreams before waking would likely have put those humans at a relative fitness advantage (e.g., survival and reproduction).

Franklin and Zyphur (2005) extended Revonsuo's hypothesis to propose that dreams may be a reflection of a more general virtual rehearsal mechanism, which may enhance the success of subsequent waking endeavors and even influence subsequent behavioral choices. Franklin and Zyphur noted that any simulations during dreaming must be perceived as real otherwise they might be dismissed as simply "dreams," which then would not carry the subsequent emotional valence necessary for success in waking life. Indeed, the front and top part of the human brain (dorsolateral prefrontal cortex [DLPFC]) is relatively inactive during REM sleep. The DLPFC appears to be highly involved in rationality and decision-making. With the DLPFC becoming inactive in REM sleep, dreams, which might otherwise be dismissed as unreal, may be treated as real and at face value. They also interpreted the seemingly randomness of dreams, its sometimes bizarre content and often surprisingly scenarios, as potentially adaptive because it may provide "a broad range of scenarios to be simulated and new scenarios to be created rather than having the same type of dream occur repeatedly" (p. 67). This idea is entirely consistent with Hartmann's (1998) idea (introduced in Chapter 1) that dreams make broader connections between ideas than do waking minds and often dreams are guided by emotional valences and concerns. He stated that "… dreaming avoids the 'tightly woven' or 'overlearned' regions of the mind (such as those concerned with reading, writing, and arithmetic)" (p. 3). Further, he proposed that new material may be processed in dreams such that it becomes interwoven within existing memory connections, and the latter, he proposed, is highly useful in solving novel problems, in scientific endeavors, and in artistic endeavors (which I shall review shortly).

Revonsuo et al. (2015) later expanded these ideas beyond the threat simulation hypothesis and proposed a *social simulation theory* of dreaming, which posits that dreaming also simulates social interactions, skills, and bonds that might be encountered during waking. They referred to the human elements in dreams as avatars and hypothesized that the avatars force dreaming humans to "maintain and practice various evolutionarily important functions of social perception and social bonding" (p. 28). Similar to social simulation theory, a relatively new dream therapy, *control-mastery theory* (CMT), emphasizes how dreams may reflect a person's efforts to adapt to reality and how dreams are an expression of unconscious "higher adaptive functions" (e.g., see Gazzillo et al., 2020; for additional details).

*Creativity*. A fifth reason for the evolution of sleep and dreams also arises directly from the contents of the thoughts and vivid dreams that arise when

humans sleep. The first preserved writings of historical civilizations like those of the Mesopotamians and Egyptians are replete with references to dreams (see Montgomery-Downs, 2020; Ribeiro, 2021; Van de Castle, 1994 for reviews of this literature). In more recent history, there are numerous anecdotal reports in the arts where inspirations come from dreams. Artists who have claimed that ideas for a painting came from a dream include Salvador Dali, Francisco Goya, René Magritte, and many others. One of Picasso's most famous pictures, *Le Rêve* (*The Dream*; it is a surrealistic, dream-like picture of his mistress) may or may not have been inspired by a dream, although its title certainly was. South African archaeologist David Lewis-Williams (2004) proposed that Upper Paleolithic cave art (~30,000 years ago) must have been inspired by shamanistic trances and hallucinatory states induced by drugs from plants. In my opinion, however, he dismisses or overlooks a much more common source for imaginative cave imagery: dreams, and in particular, therianthropes (half-human, half-beast). More importantly, dreams would have been a more readily available and steady source of inspiration to everyone and not just those who used drugs.

Musicians who claim some of their inspirations came from dreams include Wolfgang Mozart, the German composer Richard Wagner, Billy Joel, and many others. One particularly compelling story of a musical piece inspired by a dream comes from the life of Giuseppe Tartini (1692–1770), an Italian composer and violinist, who said the devil appeared to him in a dream. In this dream, Tartini handed the devil his violin, and the devil played a song with such expertise and beauty that upon awakening, he composed his now famous Violin Sonata in G minor or "Devil's Trill Sonata." This sonata and story undoubtedly inspired country-rock musician Charlie Daniels to compose the 1979 song *The Devil Went down to Georgia*.

Writers have long claimed inspirations from dreams, and many of these works have been highly influential for almost two centuries. For example, Samuel Taylor Coleridge claimed the inspiration for his classic fragmented poem *Kubla Khan* came from a dream, although to what extent it was also opium-influenced is unknown. Mary Shelley published *Frankenstein* in 1818, and she claimed that it was based on her dreams, one of which included the revival of her child that had died shortly after childbirth and another dream of a scientist who learned to create life and was horrified by his creation. In 1866, Robert Louis Stevenson published *The Strange Case of Dr. Jekyll and Mr. Hyde*, which was a battle of good and evil within a person suffering from what is now recognized as dissociative identity disorder (i.e.,

multiple personalities). Stevenson claimed that his inspiration came from one of his nightmares. Modern writers such as Steven King also claim that many of their ideas come from dreams. In particular, King said the idea for his 1987 book *Misery* (later a movie) came from dream while napping on a transatlantic flight.

Scientists also claim inspirations from dreams. One of the most famous dream stories linked to a scientific discovery is attributed to German chemist August Kekulé (1829–96), who in 1865, was the first to publish on the nature of the ring shape of the benzene molecule. Many years later, he claimed that the idea for the ring shape came during a reverie or day-dream of a snake seizing its own tail. As Russian chemist Dmitri Mendeleev (1834–1907) was working on a system to classify elements based on their chemical properties, he reported that the periodic table came to him in a dream. He stated that upon awakening, he wrote his vision down on a piece of paper, and he said it subsequently required only one correction. The brilliant Indian mathematician Srinivasa Ramanujan (1887–1920) claimed that his theorems and equations were given to him in his dreams from his family's favorite goddess Mahalakshmi. Anecdotal reports and interviews of contemporary mathematicians reveal that a majority said that they had solved a problem in a dream or thought it was a likely possibility (e.g., Krippner & Hughes, 1970). When I sought further evidence from a mathematics professor at my university, he said that had never solved a math problem in a dream. He then paused, and said, "But I dream of the most wonderful problems!"

In this review of wondrous discoveries whose origins may have come from dreams, it is important to note that virtually all reports come from people who were experts in their fields or crafts. Moreover, their dream ideas came only after intense work and long hours of expert "labor" while awake. Finally, I suggest that it may be important to this "inspiration from dreams" hypothesis that waking and sleep be viewed as a continuum of consciousness, where waking experiences, thoughts, and ideas are often carried over into sleep and vice versa. Thus, after years of intense, conscious waking work, it might be deemed highly unlikely that these ideas would not be extended into sleep's peculiar levels of consciousness. Recently my colleague archaeologist Thomas Wynn and I (Coolidge & Wynn, 2018) pondered whether the design for the Acheulean handaxe (a symmetrical, leaf-shaped stone tool), which first appeared about 1.9 million years ago, came in a dream to an expert stone tool knapper. The design was apparently so useful that it persisted for at least the next 1.5 million years or more,

and perhaps the original design came from a dream of a falling leaf, whose shape was then imposed upon a stone. I once shared this Acheulean handaxe origin idea with a prominent Stanford University anthropologist. He paused and essentially said, "Why not? I have always wondered where the idea for that design came from."

## An empirical test of sleep insight and creativity

German psychologist Ullrich Wagner and his colleagues (Wagner et al., 2004) published one of the first empirical tests of the potential for creativity during a sleep period. In their study, 106 adults were given a cognitive task that required learning stimulus-response sequences (an implicit procedural memory task). Improvement was measured by decreasing reaction times. Participants could improve abruptly if they gained insight into a hidden abstract. Twice as many participants who slept for 8 h after training became aware of the hidden rule than those who stayed awake for 8 h after training. The authors hypothesized that the participants' greater insight was not a strengthening of the procedural memory itself but an actual novel restructuring of the original representations. They speculated that the restructuring was mediated by the hippocampus, related medial temporal lobe structures, and the prefrontal cortex. These structures have been previously shown to play an important role in generating awareness in memory. Wagner et al. suspected that cell assemblies encoding newly learned tasks were reactivated during sleep by hippocampal structures, which were then incorporated into preexisting long-term memories by the neocortex. They hypothesized that this process of incorporation into long-term storage formed the basis for the remodeling and that is was a qualitatively different restructuring of representations in memory. Thus, in their opinion, sleep may serve as a catalyst for insight. More recently, Wagner and his colleagues (Diekelmann et al., 2013) found empirical evidence that sleep also processes waking thoughts about one's future activities, including plans and intentions.

## The evolution of sleep continued

Modern humans, of course, had a common ancestor with all life forms. Charles Darwin (1859/1999), in his classic book *On the Origin of Species*, was the first to propose the idea that all life forms, extinct and extant, had a singular earliest ancestor. He wrote: "Therefore I should infer from analogy that probably all the organic beings which have ever lived on this earth have

descended from someone [sic] primordial form, into which life was first breathed" (p. 484).

The search for this "primordial form," called the last universal common ancestor (LUCA), and its first appearance probably dates to the very beginnings of earth, that is, sometime more recent than 4.567 billion years ago. LUCA probably did not sleep, as its closest existing life form is most likely bacteria, which seem to be in a constant state of activity.

As noted earlier, chimpanzees are our closest (DNA-wise) living relatives with whom we had a common ancestor at least 6 million years ago. Since their sleep stages and patterns are similar to modern humans, including 20%–25% of their sleep consisting of REM sleep, it is therefore strongly suspected that the nature of modern sleep was largely in place well over 6 million years ago. Around 4 to 3 million years ago, a hominid (any direct and ancient ancestor of modern *Homo sapiens*) appeared in Africa, *Australopithecus afarensis,* and one of the most complete australopithecine skeletons ever found was nicknamed Lucy. At about three and 1/2 ft tall and 60 pounds, Lucy and the australopithecines slept in nests in trees, just as modern chimpanzees do now. Despite the environmental vagaries of sleeping in a nest in a tree (rain, wind, storms, etc.) and based on modern chimps' sleep stages and patterns, it is highly suspected that the australopithecines had SWS, REM, alternating periods of REM and other stages, and unquestionably they had vivid dreams. However, speculations are that the australopithecines lacked formal language, although they may have some words for things around them, e.g., a sound for tigers versus a sound for eagles. Thus, even if an australopithecine had a highly creative dream or idea with a dream, they would have been unable to share it with other members of its group. Although, they still might have benefitted from dreams that rehearsed challenging environmental circumstances, like falling, interactions with alpha members, and predation.

About 1.9 million years ago, a major evolutionary *grade* shift (i.e., when a group develops completely new behaviors and adaptations) occurred with the appearance of *Homo erectus*. *Homo erectus* was much larger physically than the earlier australopithecines, over 6 ft on average and a weight of about 120–140 lbs. This meant that *erectus* could no longer sleep in nests in trees, and they must have made the complete transition to terrestrial life. Their brains were also larger (about 950 cc) than the australopithecines (at less than 500 cc). One strong piece of archaeological evidence for a dramatic change in cognition from the australopithecines to *Homo erectus* was the latter's stone tools went well beyond simple sharp flakes and unmodified stone hammers.

*Homo erectus* was the first hominid to produce a stone handaxe, which was leaf-shaped and about the size of one's hand. It was clearly knapped from a larger stone flake, which meant *Homo erectus* was able to manage the core properties of a larger stone, prepared it in order to knock off a large flake, and then shaped the flake into a sinuously-edged, symmetrical (biface) handaxe, which then could be used to smash, cut, scrape, and otherwise prepare various foods for consumption. This dramatic increase in symmetry, beauty, and complexity of stone tools was also undoubtedly accompanied by a leap in cognitive abilities, which may have been directly related to changes in the overall quality and nature of a single, uninterrupted sleep period from sleeping on the ground instead of a nest in a tree.

Thus, it appears that human evolution had made a quantum leap in cognition that was accompanied by the transition from arboreal to terrestrial sleep, from the australopithecines to the genus *Homo*, and from an ape-way of life to a more human-like way of life. From studies of modern monkeys and chimpanzees, the nature and quality of sleep also changed in this transition, probably from less to more REM sleep. With a near doubling of the size of brains, *Homo erectus* and with their increase in REM sleep, could have taken greater advantage of many of the reasons for sleep that I presented earlier, especially the consolidation and enhancement of learning and memory and creative thoughts and innovative ideas. With this increased brain size, undoubtedly accompanied by an expanded vocabulary and greater communication skills, *Homo erectus* would have been able to learn and perform motor procedures, like stone knappping, with greater skill and agility than the australopithecines, and further, they might have been able to communicate thoughts and ideas that may have come from dreams to others. See Coolidge and Wynn (2018) for additional details.

## Final thoughts

The reasons for sleep have been overdetermined, and thus, there appears to have been multiple purposes for the evolution of sleep and dreams. Even if there ever was a single adaptive reason for its appearance, it probably would have been lost or changed over time. Nonetheless, sleep and its stages have been exapted innumerable times in the evolution of life. I have reviewed five major reasons for the evolution of sleep and its stages: Reduced energy demands, the facilitation of learning and memory, synaptic homeostasis, priming, and creativity. In addition, I have argued that *Homo erectus* may have been the first hominid to have derived cognitive benefits from

qualitatively better sleep *and* a single, integrated sleeping period. I have also proposed that *Homo erectus* was the first hominid to have relatively uninterrupted sleep, which preserves the integrity and benefits of SWS and REM cycles, especially upon learning and memory, where modern studies support the hypothesis that sleep, as noted earlier, not only helps consolidate memories but enhances them. Additionally, the content and ideas in *erectus*' dreams were probably also present in the dreams of the australopithecines, but I hypothesize that *erectus* was probably the first hominid to be able to transmit these dreams and ideas to future generations via their inchoate culture and an expanded vocabulary.

## Summary

1. Primitive sleep states probably developed from earth's rotational cycle, where activities were constrained by alternating periods of light and dark.
2. Reptiles, birds, mammals, and primates exhibit slow-wave sleep (SWS). Most birds, mammals, and primates also exhibit REM sleep.
3. There may have been no single purpose of sleep. Among the multiple reasons for its evolution and different sleep stages are reduced energy demands, facilitation of learning and memory, synaptic homeostasis, priming, and creativity.
4. When *Homo erectus* appeared about 1.9 million years ago, it made a full transition to terrestrial life, including sleeping on the ground instead of in nests in trees. Ground sleep resulted in a single integrated sleep period, which may have had many positive cognitive repercussions.
5. The design for the stone handaxe at about 1.9 million years ago, attributed to *Homo erectus*, may have come to a stone knapper in a dream, because dreaming appears to cast a wider net of ideas compared to waking thoughts.

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# CHAPTER 3

# A brief history of dream interpretation

*Nowadays there is no longer anybody who can bow low enough.*
**C. Jung (1964, p. 102)**

The above quote by analyst Carl Jung was in response to a rabbi's question of why God no longer communicated with people through dreams like in stories of old. Jung thought that members of contemporary society got too tangled up in their own conscious worlds and had forgotten that there was a historical tradition that God spoke primarily through dreams and visions.

Indeed, the oldest written stories are replete with an interesting and repeating theme: communication between God and people through dreams, and dream-like revelations or visions. Some of the earliest recordings of this type of dream come from the area of the Middle East. The following review is a sampling of the rich and varied influences that dreams and dream interpretation have played in many religions and cultures over a long period of written history. Perhaps dreams and dream interpretation also played an important role in even more ancient cultures, although this unwritten history is unavailable to us. It may be that dreams and visions were being recorded in cave paintings dating to as distant as 40,000 years ago, as there are many depictive pictures of wooly mammoths and cave lions. There are also many mysterious-looking figures and therianthropes (half-human, half-beast), whose origins may have come from dreams. Interestingly, children's dream commonly have therianthropes, and adults report them also, although less frequently.

## Mesopotamians

The Mesopotamian people (from what is now Iraq) included the Sumerians who left some of the earliest pictographic writings dating back to about 3100 BCE. By 2700 BCE, the Sumerians had developed a cuneiform type of writing (i.e., wedge-shaped impressions) on clay cylinders and tablets.

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Among their stories of religion, business, and war are accounts of gods speaking through dreams. The Sumerian king Gudea, who ruled in about 2220 BCE, had his dreams preserved on two clay tablets and these tablets contain the story of a puzzling dream that he had and his search with the help of a goddess for its meaning. This record is one of the earliest examples of the connection between gods and dreams, and further, it shows the early belief that gods not only talk to people through dreams but also guide people to religious acts of worship.

Around 2000 BCE, the mythic hero Gilgamesh is mentioned for the first time in Sumerian cuneiform writings, and the epic is expanded in later Assyrian writings (about 650 BCE). While guided by his dreams, Gilgamesh fights, slays monsters, and searches for the secret of immortality. In fact, the 12 tablets reporting the Gilgamesh epic also offer the first known recurring dreams by the same dreamer, and the notion that dreams may foretell future misfortune. The idea that dreams may be interpreted through different techniques is also reported in the Gilgamesh story, along with the interesting idea that dreams may be *incubated* (e.g., thought about, mulled over, discussed, etc.), thus increasing the probability that a god might give a person guidance. It appears that the Mesopotamians had an established tradition in the technique of incubation or dream-seeking. The incubant, who was often a ruler, would go to a temple designed for the purpose of having guiding or prophetic dreams. There the incubant would perform special rituals and recite special prayers before going to sleep. In the morning, if the incubant was unsuccessful, the rituals and prayers might be altered until the dreamer was successful in receiving the gods' message through a dream. The Mesopotamians not only tried to figure out what a dream might mean but also used the dream to prevent or change a future misfortunate event from occurring.

Van de Castle (1994), a dream historian and theorist, reported an interesting Mesopotamian ritual:

> *The Mesopotamians … told their dreams to a lump of clay … The dreamer would take the lump of clay and rub it over his entire body, saying, 'Lump! In your substance my substance has been fused, and in my substance your substance has been fused!' The dreamer then told the clay all the dreams and said to it, 'As I shall throw you into the water, you will crumble and disintegrate, and may the evil consequences of all the dreams seen be gone, be melted away, and be many miles removed from my body.' … These rituals were particularly common when the dream was a nightmare or involved forbidden activities or sexual practices. The disturbing content of such dreams could not be mentioned to others and had to be dispelled magically to ward off possible evil consequences.*
>
> ***Van de Castle (1994, p. 51)***

## Egyptians

The Egyptians are thought to have been influenced by the Mesopotamians (although there is some controversy about who influenced whom) in their dream beliefs, particularly in the idea that gods communicate through dreams. The Chester Beatty Egyptian Papyrus, which dates to 1250 BCE, contains about 200 of these Egyptian dreams. The Egyptians believed that dreams were sent by the gods for a number of purposes: dreams helped foretell the future, dreams guided and advised people in their waking endeavors, and dreams offered suggestions for medical treatments against disease and for injury. Egyptians also looked for *omina* or special signs. The omina could be mundane signs like birds in flight or they could come from dreams. For example, if a person dreamed that they splattered themselves with their own urine, then this omina portended: "He will forget what he has said." Egyptians used a wide variety of rituals, besides dreams, to contact their gods, including putting messages in the mouths of dead black cats, but dreams were considered a very potent method of communicating with the gods. Like the Mesopotamians, Egyptians went to special incubation temples and specially trained priests called "Masters of the Secret Things" would offer their interpretations of the dreams. The Masters of the Secret Things would offer particular rituals and prayers for inducing dreams, and they helped in interpreting the symbolism in the dreams. For example, the dream of death was given the contradictory interpretation as being a portent of a long life.

An Egyptian pharaoh Thutmose IV erected a large stela between the paws of the Sphinx at Giza in about 1450 BCE. The stela was discovered in 1818 and inscribed was the story that Thutmose, before he became ruler of Egypt, had been out hunting and fell asleep in the shadow of the Sphinx. He had a dream that the Sphinx opened its lips and spoke to him and said:

> *Behold me, O Thutmose, for I am the Sun-god, the ruler of all peoples. Harmachis is my name, and Ra, and Khepera, and Tem. I am thy father, and thou art my son, and through me shall all good come upon thee if thou wilt hearken to my words. The land of Egypt shall be thine, and the North Land, and the South Land. In prosperity and happiness shalt thou rule for many years … It is as thou seest, the sands of the desert are over me. Do that quickly which I command thee, O my son Thutmose.*
>
> **Breasted (1912, p. 327)**

It was reported that Thutmose awoke and, as commanded, he cleared the sand from the Sphinx, and erected the stela in honor of his dream. The rest of the story on the stela is damaged and undecipherable. However, as the Sun god had promised, Thutmose became ruler of Egypt, and apparently he was well loved and presided during a prosperous period.

There are also 21 Egyptian papyri, known as the oracular amuletic decrees, dating to about 1000 BCE to approximately 700 BCE. They were small, wrapped up tightly, and were worn around the owner's neck as an amulet. Two-thirds of them were worn by female owners. The owners commissioned scribes to include the owner's name, and the most common of the papyri were appeals to gods for promises of immunity from diseases. Interestingly, dreams were frequently mentioned. These amuletic appeals took a common form, and that was to "make every dream which [he or she] has seen good, and make every dream which someone else has seen for [him or her] good."

The Egyptian tradition of recording dreams continued through the later Greek and Roman influences upon its culture. In a discovery of clay tablets in Saqqara, Egypt in the late 1960s and early 1970s, demotic (a cursive version of hieroglyphics) writings dating from about 180 BCE to about 140 BCE revealed that a priest named Hor had recorded battles, made appeals to the current pharaoh Ptolemy VI, and noted his own dreams. In one of these tablets, Hor appeals to the gods Seth and Horus for a "truthful" dream and a prediction for a beneficent future (Ray, 1976).

## Jewish and Christian dream traditions

In the Old Testament of the Bible, and in a story that may predate Thutmose IV's time, the first mention of a dream occurs in the book of Genesis. According to the Bible, Jacob, the son of Isaac and the grandson of Abraham, went on a journey to escape his brother Esau's death threat, and one night Jacob slept with a stone under his head. In Chapter 28:12–14 appears the following:

> *And he had a dream, and behold, a ladder was set on the earth with its top reaching to heaven; and behold, the angels of God were ascending and descending on it. And behold, the Lord stood above it and said, 'I am the Lord, the God of your father Abraham and the God of Isaac; the land on which you lie, I will give it to you and to your descendants. Your descendants shall also be like the dust of the earth, and you shall spread out to the west and to the east and to the north and to the south; and in you and in your descendants shall all the families of the earth be blessed.'*

There are some fascinating similarities between these two tales. First, of course, is that God has communicated to a mortal through a dream. Second, God promises prosperity to both of the dreamers. Third, both stories curiously have God mentioning the direction of the dreamer's future rule

(or its length and breadth, depending on the translation). Fourth, both dreamers are commanded by God to do some religious duty (in Genesis 35:1 Jacob is later commanded by God to build an altar where he had the dream). At the very least, these literary similarities establish a theme dating to at least 2000 BCE where a god consistently used dreams as a mode of communication and the archetypal themes were also consistent with one another: a god communicating with humans through dreams, the promises of prosperity, prediction of future events, and religious duty.

Later in the Book of Genesis, Jacob's son Joseph becomes well known for his ability to interpret dreams. And remember, this is hardly a new profession even for Joseph in 1800 BCE. As already noted, the Egyptians had a long history of professional dream interpreters and so did the Mesopotamians. Joseph, like his father, had jealous siblings and was sold into slavery, eventually ending up in a Pharaoh's prison. Even Joseph's problems with his siblings came from a dream that he had where his interpretation was that his brothers should honor him.

In Genesis 40—42, it was said that while in prison, Joseph interpreted the dreams of two of the Pharaoh's domestic staff, giving one a favorable interpretation and the other an ominous one. Although both dreams came true as Joseph had predicted, Joseph lingered in jail two more years until the Pharaoh had two dreams with similar themes. In Genesis 41, it was written:

> *Now it came about in the morning that his [the Pharaoh's] spirit was troubled, so he sent and called for all the magicians of Egypt, and all its sages. And the Pharaoh told them his dreams, but there was no one who could interpret them … The Pharaoh sent and called for Joseph, and they hurriedly brought him out of the dungeon. And the Pharaoh said to Joseph, 'I have had a dream but no one can interpret it; and I have heard it said about you, that you can interpret it.' Joseph then answered the Pharaoh, saying, 'It is not in me; God will give the Pharaoh a favorable answer.'*

When the Pharaoh related the two dreams, Joseph said that they were one and the same. Joseph predicted 7 years of abundance followed by 7 years of famine. However, Joseph told the Pharaoh that by preparing ahead and storing grain from the years of abundance, Egypt could avoid a major disaster. Joseph interpreted the meaning of having two similar dreams as an indication that God had made his mind up and the matter was settled. There was no changing the future but one could prepare oneself accordingly.

The Jewish religion shares with Christians the first five books of the Old Testament, collectively known as the Torah. The Talmud, contemporary

with the writings in the Bible, is a comprehensive book of Jewish laws, compiled between about 500 BCE and 300 CE. The Talmud has 217 references to dreams including one of the oldest recurring dreams, the loss of teeth. A professional dream interpreter in the Talmud was asked to interpret the loss of teeth in dreams. He offered the explanation that the dream portended death.

In the Bible's New Testament, there are numerous references to dreams, particularly in Matthew. In Matthew 1, it was written that Mary was found already to be pregnant although engaged to Joseph. It was said that Joseph was a righteous man but troubled by this event and thought about discreetly hiding Mary. In Matthew 1:19—21, the story continues:

> *But when he [Joseph] had considered this, behold, an angel of the Lord appeared to him in a dream, saying: 'Joseph, son of David, do not be afraid to take Mary as your wife; for that which has been conceived in her is of the Holy Spirit. And she will bear him a Son; and you shall call His name Jesus … '*

In Matthew 2, it states that three wise men from the East had sought out Mary and the baby Jesus, and finding them, they knelt down and paid Jesus homage. In Matthew 2:12, it says that they were warned in a dream not to return to the evil King Herod who was also seeking Jesus. In Matthew 2:13, it is reported that another angel of the Lord appeared to Joseph in a dream and told him to flee with his family to Egypt, because Herod wished to kill Jesus. In Matthew 2:19, it is said that when Herod died, an angel again appeared to Joseph in a dream while in Egypt and told him to return to the land of Israel. Later, in verse 22, Joseph is said to be warned again in a dream, and he left for the district of Galilee.

I personally find it very interesting that both the stories of the beginnings of Jesus' life and the end of his are framed by dreams. In Matthew 27:19, it is reported that Jesus was arrested by the local governor, Pontius Pilate. While captive:

> *And while he [Pilate] was sitting on the judgment seat, his wife sent to him, saying, 'Have nothing to do with that righteous Man; for last night I suffered greatly in a dream because of Him.'*

Pilate was obviously affected by his wife's dream (perhaps the first clear Biblical reference to a nightmare), washed his hands in front of the crowd, and declared himself innocent of the eventual spilling of Jesus' blood.

Later, there are also stories of Christians who were profoundly influenced by their dreams. Most notable among them is the story of Joan of Arc

(1412–1431), a French heroine, who reported having dream visions at the age of 13. She claimed that saints would talk to her, and she said that they told her that she was chosen to defeat the English in battle – which she subsequently did. Eventually, however, she was defeated and captured. The English viewed her military ascendance as proof that she was inspired or helped by the Devil. There are modern claims that her visions were consistent with a diagnosis of schizophrenia, although her trial records appear to show her replies to questions were rational, consistent, lucid, and that she had a good memory for events. Further, it is clear that many in the French military were inspired by her words and actions, which is also not consistent with a diagnosis of schizophrenia. Despite trial evidence for her rationality, other than her actions being inspired by God's saints, she was actually officially convicted of cross-dressing as a man and burned to death at the stake. Ironically, 25 years later, she was legally declared innocent by a papal nullification trial. The cross-dressing charge (wearing men's military garb and armor) was instigated by a passage in the Old Testament's Book of Deuteronomy (22:5), which states a woman should not dress as a man or vice versa, as it is "abhorrent" to God.

## Greek dream interpretation: the *Oneirocritica*

In the middle of the second century CE, Artemidorus, a Greek philosopher, published five books about dream interpretation known as the *Oneirocritica* (translation: *Interpretation of Dreams*; Artemidorus, 1975). Interestingly, the latter two books were written in the form of letters to his eponymously named son, an apprentice dream interpreter. Perhaps, with the exception of Freud's *The Interpretation of Dreams,* the *Oneirocritica* has been the most quoted book on dream interpretation in history. Artemidorus attempted to offer his readers a system and principles for categorizing and interpreting dreams. Clearly, his work tapped into a long history of prior Grecian and earlier cultures of dream interpretation. Many of these works Artemidorus cited in his book, but there are few remaining copies of the earlier works.

Like his predecessors, Artemidorus argued that the dreamer's occupation, habits, and attitudes must all be taken into account before any dream could be interpreted. It is, perhaps, the most outstanding feature of the *Oneirocritica* that Artemidorus attempted to stay rational and practical in the interpretation of dreams and to eliminate prior influences of superstition and mysticism. Many of the roots of Freud's dream interpretation principles

can be found in Artemidorus' work. For example, Artemidorus noted that many dreams are simply a continuation of the prior day's activities. He also noted that bodily needs or recent important events can be represented directly in a dream. Artemidorus argued that the age and health status of a person must be known before a dream could be interpreted. It appears that Artemidorus meant for the first three books to be read by the general public. The last two books were much more personal, and he even encouraged his son to keep the last two books private. They are both full of fatherly warnings and advice. He encouraged his son to fully learn the local customs and peculiarities of every place that his son traveled, not just for the sake of dream interpretation, but also to be a better person. Artemidorus argued that bad dreams seem to come true more quickly than good dreams, and he warned against mystical approaches to dreams, which he thought tended to attribute too much importance to inconsequential aspects of dreams. Like the modern dream interpreter and psychotherapist, Fritz Perls (1893–1970), but 1800 years earlier, Artemidorus thought recurrent dreams were especially important.

Despite the many influential and practical aspects of Artemidorus' approach, he still reinforced a very long history of promoting a glossary of dream meanings. For example, Artemidorus interpreted the dream of a beard as a good omen. If a woman dreamed she had a beard and if she was a widow, it meant that she would marry again. If she already had a husband, then she would be separated from him. He also had an elaborate interpretation of tooth dreams, including very specific interpretations of the mouth, its right side and left side, molars, incisors, grinders, and canine teeth. The loss of teeth, either singly, together, or broken, Artemidorus interpreted as related to the payment of debts. Interestingly, if a sick person had the tooth loss dream, he thought it indicated a lingering illness but "clearly signifies that no death will result." The *Oneirocritica* also had long sections about the interpretation of sexual dreams; however, again, these interpretations were all based on a glossary of meanings, and there is no good evidence whatsoever that a glossary of dream meanings is valid (as noted in Chapter 1).

## Later Jewish dream interpretation: the *Pitron Chalomot*

In Freud's (1900) classic book, *The Interpretation of Dreams,* he mentioned that Jewish dream interpretation may date back earlier to a book, *Dream*

*Interpretation* (*Pitron Chalomot*), written by Almori in 1848. Apparently, Freud was unaware that the first edition of Almori's book occurred over 330 years earlier in 1515 in Constantinople. Furthermore, Jewish dream interpretation, as noted previously, had a far older history, with numerous dream references in both the Torah and the Talmud (e.g., Covitz, 1990).

Almori was a Jewish rabbi, judge, physician, and philosopher. At about the age of 30 in 1515, he published the book *Mefasher Chelmin* (*Dream Mediator*), which was later published as *Interpretation of Dreams* (*Pitron Chalomot*). Interestingly, he believed that everyone had at least one great thing to say in his or her lifetime. The book's success is relatively obvious, because Freud became aware of a copy printed over three centuries later, and a Yiddish version was printed as late as 1902 in Brooklyn, New York.

The *Pitron Chalomot* contains three sections: Almori's theory and principles of dream interpretation, a dictionary offering the interpretation of various dream symbols, and a discussion of the ways to "break the spell" of bad dreams through religious rituals. The first section drew upon dream references in the Torah and the Talmud, as well as two other Jewish books, the Zohar and the Midrash. Almori began with the premise that it is a basic desire of people to understand the meaning of life. However, he firmly believed that, by virtue of people's very nature, they were incapable of this understanding, and thus required God's help. His primary idea was that this understanding could be acquired through the interpretation of dreams, and yet Almori believed even this avenue was fraught with difficulties. People were not practiced in the interpretation of dreams, and often they feared the meanings of their dreams, as well as fearing those who professed to be able to interpret their dreams. In the Old Testament Job 33:13–17, Elihu states that God opens the ears of men while they are sleeping, and yet they do not understand His decrees.

Almori decried the fact that dream interpretation had such a low status in contemporary society, and he felt strongly that dreams were not mere metaphors. He thought that dreams had consequences and that they could be divinely inspired, offering humanity a glimpse of the mind and purpose of God in their lives. He wrote:

> *… I, Solomon Almori, the most insignificant of my generation, became imbued with zeal for God, the God of prophets and of His people Israel, in order that His communications should not be lost. I took it upon myself to seek out every word written upon this subject [dreams] and then to transcribe these sayings, together with my own meager contributions, into a single small text that will bloom like a rose … I have titled this book 'Dream Mediator,' for I will set forth universally valid*

> *principles whereby all people will be able to interpret their dreams and understand their significance.*
>
> **Covitz (1990, p. 13)**

In the first section of his book, Almori listed the hierarchical levels of dreams, the highest being the prophetic dream, and he gave the examples of prophetic dreams from the Torah of Jacob, Daniel, and Solomon. Jacob, for example, had the now legendary dream of angels ascending and descending a ladder suspended between heaven and earth. In the dream, God told him that he and his descendants would prosper (Genesis 28:13—14). With regard to prophetic dreams, Almori agreed with Aristotle, who believed that they could only come to the distinguished, wise, and powerful (which, of course, is very unlikely, even if prophetic dreams were a valid phenomenon; see Chapter 8 for an additional discussion of prophetic dreams). Almori also believed that, unlike ordinary dreams (the second level of dreams), prophetic dreams had virtually no useless material in them.

For ordinary dreams, Almori gave the example of Joseph and the Pharaoh's dreams of an impending drought (Genesis 40—41). Almori noted that even ordinary dreams were 1/60th prophetic. The third level of dreams was the dreams of sorcerers and false prophets. Almori gave the example from Deuteronomy 13:2 that warns against the interpretations of dream-diviners, who could conjure the dream images they desired by preparing themselves before sleep to have particular images. In this case, Almori appears to have been describing what is now known as lucid dreaming (LaBerge, 1985), i.e., the ability of some people to become aware that they are dreaming and to affect the outcome of their dreams by preparing themselves before sleep. Also see Hobson et al. (2021) for their interesting neurophysiological insights on lucid dreaming.

Interestingly, in Almori's summary about his three levels of dreaming, he noted that it is an imperfect world, such that every dream will have some useless material, even prophetic dreams, but, more importantly, Almori claimed that "you will never come across a dream that is totally without value … If we think a dream has no significance, we may be sure that we have failed to understand the dream" (Covitz, 1990, p. 17). Almori also believed that it was the task of the dream interpreter to weed out the mundane and inconsequential aspects of a dream from the meaningful aspects. To support this contention, Almori cited the Talmud, where Rabbi Berakhiah stated that part of a dream may be fulfilled, but the whole of a dream can never be fulfilled.

## An uninterpreted dream is like an unread letter

Almori offers some additional dream interpretation principles, amazingly modern and useful. He again cites the Talmud: "A dream that is not interpreted is a like a letter that is not read." Almori interprets this passage as a responsibility of the dreamer to have his or her dreams interpreted. Almori reasons that a dream cannot be fulfilled, for good or ill, if the dreamer does not have it interpreted. Almori also believed in the Talmudic passage that "all dreams follow the mouth." This arcane saying may have indicated that dream interpreters in the Talmud had some liberty in putting a positive spin on negative dreams, and even a negative spin on positive dreams. Thus an ancient, ethical dream interpreter, according to Almori, could have made positive outcomes from evil dreams, and vice versa. And what were the consequences of uninterpreted dreams? Almori strongly believed in the divine nature of dreams. He believed that if the dreamer failed to correctly understand the dream or failed to perform whatever was required of the dreamer, God would no longer communicate anything important to the dreamer, and all dreams would become inconsequential and insignificant.

An overall summary of Almori's dream interpretation techniques is amazingly contemporary. The sleep researcher Ernest Hartmann, as noted in Chapter 1, appears not so much an innovator in light of Almori's work, as a rediscoverer of Almori's dream principles. Like Hartmann, Almori believed that dreams communicate messages using a metaphor or an allegory. Almori also noted that two people may have the same dream, and the interpretation could be quite different. He noted that every dreamer could derive a different interpretation from the same dream based on his or her unique past and different personality. He also noted that dream interpretation was dependent upon wisdom, and therefore not everyone could readily interpret dreams.

## Buddhists

Dreams also played a central role in the story of the founding of Buddhism. In 544 BCE, Buddha's future mother, queen Maha-Maya, was at a feast. After eating, she returned to her royal couch and had the following dream (de Becker, 1968).

*Four guardian angels came and lifted her up, together with her couch, and took her away to the Himalayan Mountains. There … they laid her under a prodigious sal-tree. Then came the wives of these guardian angels, and conducted her to Anotatta Lake, and bathed her, to remove every human stain … Not far off was Silver Hill, and in it a golden mansion. There they spread a divine couch with its head toward the east, and laid her down upon it. Now the Future Buddha had become a superb white elephant, and was wandering about at no great distance, on Gold Hill. Descending thence, he ascended Silver Hill, and approaching from the north, he plucked a white lotus with his silvery trunk, and trumpeting loudly, went into the golden mansion. And three times he walked round his mother's couch, with his right side toward it, and striking her on her right side he seemed to enter her womb. Thus the conception took place in the Midsummer Festival.*

*On the next day the queen awoke, and told the dream to the king. And the king caused 64 eminent Brahmans to be summoned, and spread costly seats for them on ground festively prepared with green leaves, Dalbergia flowers, and so forth. The Brahmans being seated … And when their every desire had been satisfied, he told them the dream and asked them what would come of it. 'Be not anxious, great king!' said the Brahmans; a great child has planted itself in the womb of your queen, and it is a male child not a female. You will have a son. And he, if he continue to live the household life, will become a Universal Monarch; but if he leave the household life and retire from the world, he will become a Buddha, and roll back the clouds of sin and folly of this world.*

***de Becker (1968, pp. 42–45)***

Interestingly, this virginal conception predates by 500 years the Christian belief that Christ was conceived without sexual intercourse. And perhaps more amazing is that Joseph, the stepfather of Jesus, is made aware of Jesus' conception in the exact same way as Buddha's mother — from a dream.

## Hindus

The Hindu religion has no single sacred text, yet there is a sacred core of works, and in all of them there are references to dreams. The oldest of these sacred books are the Vedas, which are thought to have been written from about 1500 BCE to 1000 BCE. The Vedas contain not only interpretations of dreams much like the Egyptians', where particular activities or symbols are given either a favorable or unfavorable prognosis, but also the Vedas offer rather sophisticated theories for the role that dreams play in unconscious and conscious daily waking life. The archetypal dream of the loss of teeth is also present, predating the Talmudic reference by at least 1000

years, and, as in the Talmud, it has ominous and foreboding meaning for the dreamer.

A second major religious Indian treatise is the Upanishads, which were written from about 900 BCE to about 500 BCE, and they also contain references to dreams. The *Bhradaranyaka Upanishad* offers two theories of dreaming. One is similar to the Freudian notion that all of the objects in a dream actually represent the dreamer's secret wishes and desires. The second theory is similar to a Chinese dream idea that the soul wanders about during dream sleep, and that if a dreamer is suddenly awakened their soul may not have time to return to its body and the dreamer might die. The last three holy Hindu works are the *Ramayana, Mahabharata*, and the *Bhagavad Gita* (actually a part of the *Mahabharata*). They were written about the same time as the Talmud, about 300 BCE to 200 CE. All three of these sacred works contains references to dreams, particularly prophetic dreams.

## Chinese texts

One of the classic texts in Chinese history is the *T'ung Shu* (Palmer, 1986 [translation: *Book of Myriad Things*]). The core history of the *T'ung Shu* dates back well over 4000 years, and it was initially created as an almanac, commissioned by Chinese rulers, giving details of the lunar calendar and the seasons. Subsequent additions to the annual production of the *T'ung Shu* consisted of advice and essays on geomancy (divination based on geographical features; arranging one's environmental surroundings to enhance one's health and welfare, e.g., feng shui), herbal medicines and cures, fortune telling, numerology, legends, predictions, and even pregnancy charts. In approximately 1000 BCE, a new section was added to the *T'ung Shu* entitled "*Old Mr. Chou's Book of Auspicious and Inauspicious Dreams*." Mr. Chou was reputed to have been a reference to Chou Kung, the Duke of Chou, who may have assisted in the compilation of the *I Ching*, one of the most important Chinese works of divination. Even in modern times, the link remains between Old Mr. Chou's name and dreams. For example, a teacher who encounters a sleeping student might say, "Are you visiting Mr. Chou?"

The similarities to the ancient Egyptians' dream writings are striking. Both texts listed dreams as good and bad, auspicious and inauspicious, and both employed puns, although some of the latter are lost through the vagaries of time and translation. Also, there have been recorded dreams in both cultures in which an emperor divined their future authority and ruled

through a dream. It is also important to note that classic and ancient Chinese texts did not rely solely on dreams for divination because the Chinese had other means of foretelling the future, such as the zodiacal predictions, geomancy, palmistry, numerology, physiognomy, charms, talismans, etc. Interestingly both cultures' dream texts noted dreams of civil and criminal legal actions regarding the dreamer.

*Old Mr. Chou's Book of Dreams* in the *T'ung Shu* is divided into seven categories and examples of each category follow:

1. The Heavens and the Weather: If you dream of the sun or moon rising, then your family will prosper. If you dream of a dark, cloudy, drizzly day, then someone is going to die or be killed.
2. Features such as Houses, Gardens, Forests, etc.: If you dream of lying on a large stone, then you will have good fortune. If you dream of an empty town, then you could be murdered.
3. Gods, Fairies, Spirits, etc.: If you dream of visiting a temple, then you will have extremely good fortune. If you dream of a dead person rising from a coffin, you will earn a lot of money.
4. The Human Body: Dreaming of your teeth falling out means your parents are in danger. Dreams of growing teeth means that you will have many sons and grandsons.
5. Being Out of Harmony with Someone — Music: To dream that you or anyone kills a duck, goose, or chicken means very good fortune. To dream of killing a lamb is a sign of evil or danger.
6. Living Creatures, Birds, Animals, etc.: If you dream that a snake bites you, it means lots of money. If you dream of any bird flying into your house, it means that you will soon come into danger.
7. Clothing, Jewelry, and Miscellaneous Items: To dream of a fish breaking a boat implies bad fortune. To dream of picking up money is good fortune.

There are some other references to dreams in ancient Chinese literature, such as in the writings of Confucius. Compared with other ancient cultures, it may be surmised that the Chinese also relied upon dreams as a source of revelation and that they also had additional bases on which to divine and foretell the future (like geomancy) other than dreams.

## Islamic religion

The Prophet Muhammad (570—632), founder of the Islamic religion, had his first vision (or dream — apparently the written accounts of the event

varies) at the age of 40, when the Angel Gabriel appeared to him when he was alone meditating in the mountains near Mecca. He went home fearfully to tell his wife because he believed that he might have gone insane. She reassured him of his goodness, but took him to a Christian cousin who listened to the angel's revelations to Muhammad. The cousin said that the revelations were the truth and the same teachings as brought by Moses and Jesus (e.g., Dawood, 1956). There is some consensus among contemporary Islamic scholars that the interpretation of dreams and divine dreams are gifts bestowed on whom Allah wills. The latter thought reminds me of analyst Carl Jung's comment when he was told that God did not or could not contact people by dreams. Jung's answer to any rational theologian who posed that idea was, "By what authority does he [sic] suggest that God is unable to speak through dreams?" (Jung, 1964, p. 102).

## Mormon religion

Joseph Smith (1805–1844), the founder of the Mormon religion, or Church of the Latter-Day Saints, was reportedly an unschooled boy of 14 when he reported his first dream vision of God and Jesus Christ. He said that when he was 22, the Angel Moroni appeared to him and gave him Egyptian-like characters on golden plates. Smith translated the script into *The Book of Mormon* and quickly attracted many followers for his new religion. Early in 1844, Smith declared his candidacy for the U.S. presidency. However, in June of 1844, a mob of angry Mormon dissidents swarmed the jail where Smith and his brother were held for destroying the dissidents' newspaper press, and they were murdered. Today, the Mormon religion is predominant in the state of Utah and is known throughout the world for its missionary work.

## Final thoughts

It is no small irony that the world's cultural and religious history has been so intimately influenced by dream communications with God. Yet modern history, particularly the 20th and early 21st centuries, has been characterized by a nearly complete absence of reports of people's dream communications with God. In fact, dreams of communication with God are generally dismissed as invalid or the product of deranged minds.

As noted at the outset of this chapter, Jung pondered this question of why people complained that God no longer speaks to them like He used to.

He thought that members of contemporary society had forgotten that God spoke primarily through dreams (during sleep) and visions (wakefulness). On the difference between dreams and visions, Jung thought whether one is asleep or awake, their contents emanated from the unconscious. The main difference to Jung appeared trivial: visions occurred only in the waking state.

Jung argued that whatever the unconscious might ultimately prove to be, there was no denying that it was a natural phenomenon that produced meaningful symbols. Furthermore, Christian doctrine even states that some concepts, like the Holy Trinity, can only be understood through divine revelation.

## Summary

1. The earliest history of dream interpretation dates back at least 4000 years and has an interesting and repeating theme: communication between God and people through dreams.
2. The early Mesopotamians (about 2000 BCE) had a rich history of dream interpretation including the practice of dream incubation.
3. The Egyptians were thought to have been influenced by the Mesopotamians, and they recorded hundreds of dreams and their interpretations on papyri.
4. Early Jewish and Christian (200 BCE–300 CE) writings, including the Torah and Talmud, and both testaments of the Bible, are replete with dream and dream interpretation references.
5. In the middle of the second century CE, Artemidorus, a Greek philosopher, published a compilation of writings about dream interpretation. The book was called the *Oneirocritica*, and it has been one of the most quoted books on dream interpretation in history.
6. A Jewish philosopher, rabbi, and dream interpreter, Almori, published the *Pitron Chalomot* (translation: *Dream Interpretation*) in 1515. It contained many ancient and still current notions about dream interpretation including the idea that dreams can provide greater meaning to our lives.
7. Buddhist writings also contain references to dreams, including the story of the conception of Buddha by himself in the form of a white elephant.
8. Hindu sacred works also contain references, including the roles that dreams may play in our waking conscious lives.

9. Early Chinese texts (approximately 4000 years ago) also have references to dreams, and the tradition of dream interpretation is recorded in the T'ung Shu.
10. Islamic scholars credit a divine vision or dream bestowed by Allah upon the Prophet Muhammad in about 600 CE for the founding of the Islamic religion.
11. Joseph Smith, founder of the Mormon religion in about 1830 CE, credits a divine vision or dream from the Angel Moroni for his creation of *The Book of Mormon*.
12. Analyst Carl Jung asked any rational theologian by what authority could they claim that God could *not* speak to people through dreams?'

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# CHAPTER 4

# Freudian dream interpretation

> *… there is a psychological technique which makes it possible to interpret dreams, and that, if that procedure is employed, every dream reveals itself as a psychical structure which has a meaning and which can be inserted at an assignable point in the mental activities of waking life.*
>
> **S. Freud (1900, p. 35)**

Upon my first visit to the British Museum in London, I walked into the majestic round Reading Room, where so many famous scholars have studied. One glass case caught my attention in particular. The British Reading Room staff had encased three first edition books that, in their opinion, had influenced modern thought more than any other works in the past 150 years. Those books were: Charles Darwin's *Origin of Species*, Karl Marx's *Das Kapital*, and Sigmund Freud's *The Interpretation of Dreams* (*Die Traumdeutung*). Being trained as psychologist myself, I was impressed with the latter choice. Having taught Freud for years, I knew that *The Interpretation of Dreams* did far more than provide Freud's advice on interpreting dreams. In the book, Freud outlined his theory of psychoanalysis, the structure and formation of the psyche, and his guidelines for conducting psychoanalysis, in addition to his theories of dreaming. Also, having read *The Interpretation of Dreams* many times, I knew the book to be an excellent introduction to Freudian theory, with the exception of some of his later works that modified some of his concepts. I also knew, however, that *The Interpretation of Dreams* went far beyond any previous dream work, in that Freud couched dream analysis not only in an elaborate psychotherapeutic technique (psychoanalysis) but also in an elaborate theory of behavior (psychodynamic theory) (Fig. 4.1).

Freud was born in 1856 in Freiberg, Austria (now Príbor, Czech Republic) and died of cancer in London in 1939. He considered himself an outsider nearly all his career. First, he grew up Jewish in a Catholic country, and, from early in his academic beginnings, he experienced the vicissitudes of antisemitism. Ironically, however, he was an avowed atheist and referred

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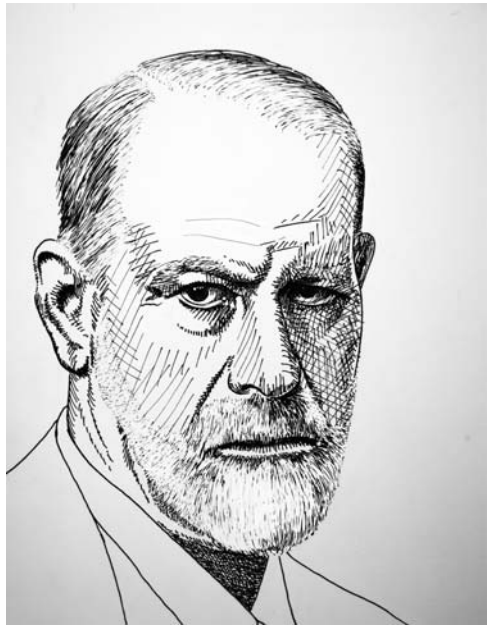

**Fig. 4.1** Sigmund Freud (Google images). *(Tom Dennis with the original artwork.)*

to himself as a "godless Jew." In 1877, he studied with Ernst Brücke, a German physiologist, whom Freud viewed as the most important teacher in his life, and Freud eventually received his MD degree in 1881. In 1884, he published a paper on the uses of cocaine, particularly its use as an anesthetic for minor eye operations and as a means of relieving depression and morphine addiction. However, in his enthusiasm, he overlooked its addictive qualities and became addicted himself for many years. When a close friend died from the addiction, Freud renounced cocaine use and often endured his later cancer operations with only a local anesthetic. In 1885, he received a small grant to study with Jean-Martin Charcot, a French neurologist, who was interested in hysteria and the use of hypnosis to treat it. On November 4, 1899 Freud published his monumental work, *The Interpretation of Dreams*, but it carried the more auspicious publication date of 1900. In 1906 Carl Jung and Freud began the correspondence that would have them visit Clarke University together in 1909, as Freud steadily became world-famous. Despite being chosen as Freud's "crown prince" of

psychoanalysis ("the talking cure"), the theoretical rift between Jung and Freud widened, and they had stopped all correspondence by 1912. In 1923, Freud had the first of many operations on his jaw for the cancer that would eventually kill him 16 years later. In 1927, Freud published *The Future of an Illusion* where he firmly stated his objections to the false illusions of religion and proposed that the human race's only savior was scientific reasoning. In 1930, he continued with his psychoanalysis of culture and published *Civilization and its Discontents*. In 1933, Freud's writings were publicly burned in Germany under the new Nazi regime. In 1938, the Nazis marched into Austria to cheering throngs. Freud and his family left for Paris and then London. However, one condition for leaving stipulated by the Nazis was that Freud sign an indemnification letter. Freud included the following brazen sentence: "I can heartily recommend the Gestapo to anyone." His cancer was finally inoperable, and Freud asked his physician for a series of morphine injections. He died later that night at 3 a.m., on September 23, 1939.

## The manifest and latent meaning of dreams

Sigmund Freud advanced in *The Interpretation of Dreams* the hypothesis that dreams had both an obvious or manifest meaning and a symbolic or latent meaning. The manifest meaning of a dream is simply what appears most obvious as a dream's theme. Freud also used the phrase "pictorial value" to describe the manifest content of dreams. For example, a college football player told me the following dream:

> *I was coming out of the dorm, and people were just standing around. I started to run into them, knocking into them and knocking them over. Just then an airplane swooped over our heads and started machine-gunning them. I wasn't hit.*

I think that the obvious or manifest meaning of this dream is easy to interpret. It contains a common theme of hostility or aggression. To come to the conclusion that a 19-year-old football player's dreams contain hostility is not exceptionally helpful. It could be helpful, of course, but Freud and other dream theorists have made the argument that the latent meanings of dreams are far more useful. Freud thought that the latent and symbolic meanings of dreams provided for a much richer interpretation.

Freud thought that the manifest meanings of dreams were chosen from our waking daily life. Much of this material might be from the previous

waking day, yet frequently there might also be scenes from our childhood. However, Freud believed that no recent waking idea or scene from the past was chosen randomly. He believed that strong unconscious issues were ultimately selected from the myriad waking ideas and old memories. He thought these unconscious issues were still too scary and powerful to be perceived even by the consciousness of the dream state. Thus, the issues became symbolized or hidden by an automatic process of the psyche. For example, I recently had the following dream:

> *I was outside a metal building whose inside consisted of ugly metal beams. I was remembering in the dream that this building had something to do with the draft and that I had been there 30 years ago. A bad feeling welled up inside as I recalled the memory of having been sent a letter to report for my draft physical during the Vietnam War. I tried to remember whom I was with when I was in this building, and I recalled it was two buddies from high school. I remembered their names in my dream. I kept thinking, once one was inside the building, it was too late to resist. We were herded like cattle through various stations until we came out, and then no resistance was possible. But now the building was unused and just a smelly relic. I stood outside in the sunshine and kept thinking, 30 years ago, the draft was like a holocaust for 18-year-olds.*

I do not think it is likely that I could pick out my own latent issues in this dream. I could probably figure out something, but I think my own unconscious resistance will prevent me from determining major unconscious themes. However, I present the dream to show how manifest content is not chosen randomly. This dream, whose manifest content was full of anxious themes, appears to remind me of the long-forgotten fears I had of being drafted and sent to Vietnam. Also, it now reminds me of the helplessness I felt. I was only in my second year of college. I wanted to finish my degree. I did not want to be separated from my wife and son, and I did not want to die (too early).

No doubt the themes of helplessness and death are common major issues for nearly everyone and are probably unresolvable. No rationalization is ever fully successful in keeping them at bay, and probably some ego defenses are more successful than others in keeping one's major unconscious issues hidden. However, eventually something in our current daily lives will subtly or unconsciously remind us of our major issues, and invariably we dream about them.

Freud believed that there were at least two major processes operating to turn unconscious issues into manifest content — *condensation* and *displacement*. The process of condensation involves taking more than one unconscious

issue and combining them into a single dream image. Freud also called these unconscious issues dream thoughts and that we should distinguish from what we actually "see" in the dreams. What we see, he called dream elements or dream content. Thus, there can be more than one correct interpretation, and thus more than one meaning of a single dream element, so Freud (1900) said that a dream will be made in the following manner:

> *A dream is constructed, rather, by the whole mass of dream-thoughts being submitted to a sort of manipulative process in which those elements which have the most numerous and strongest supports acquire the right of entry into dream-content … the elements of the dream are constructed out of the whole mass of dream-thoughts and each one of those elements is shown to have been determined many times over in relation to the dream-thoughts.*
>
> **Freud (1900, p. 404)**

Displacement is a process of transformation where the fearful unconscious issues become changed into approachable subject matter. Freud described the process in the following manner:

> *It thus seems plausible to suppose that in the dream-work a psychical force is operating which on the one hand strips the elements which have a high psychical value of their intensity, and on the other hand, by means of over-determination, creates from elements of low psychical value, new values, which afterward find their way into the dream-content. If that is so, a transference and displacement of psychical intensities occurs in the process of dream-formation, and it is as a result of these that the difference between the text of the dream-content and that of the dream-thoughts comes about. The process which we are here presuming is nothing less than the essential portion of the dream-work; and it deserves to be described as "dream-displacement." Dream displacement and dream-condensation are the two governing factors to whose activity we may in essence ascribe the form assumed by dreams.*
>
> **Freud (1900, p. 412)**

The psychotherapist could use both the manifest and latent content of the dream for discussion in psychotherapy. As I stated earlier, I believe that the manifest content is relatively easy to recognize. For example, in my previously related dream, the overt theme appeared to be anxiety. If we depart from Freudian theory briefly, there is some empirical support, which suggests that recent waking anxieties create anxiety dreams. Thus, a therapist might say: "Fred, your dream contains some obviously anxious themes. What do these anxious feelings make you think about in your current life?" Here, the therapist will simply use a process of free association to find some current worrisome material in Fred's life. However, remember

that I stated that manifest content is not that exciting or compelling! I believe that the therapist could possibly help the patient solve their current worry only to find that a plethora of daily worries hurry to replace that solved one. I think that the therapist will benefit the patient more if the therapist can help the patient solve or even begin to think about the "original" anxiety or even one of them. I believe, like Freud, that it is the early childhood or adolescent issue that triggers the current adult situational anxiety. Because most therapies operate on the principle that awareness, per se, is curative, just having the patient becoming aware that the current anxiety may take the form of an early childhood issue may be helpful, and the therapist does not have to take the responsibility for solving the issue. I trust, like Carl Rogers, a humanistic therapist, that the patient knows best how to solve the problem. If the therapist helps the patient to become aware of the old issue and provides an unconditionally positive or safe psychotherapeutic environment, the patient will eventually provide a correct solution.

## Dreams as wish-fulfillment

Freud (1900) stated clearly:

> *A dream remains the fulfillment of a wish, no matter in what way the expression of that wish-fulfillment is determined by the currently active material.*
>
> *… [T]he meaning of every dream is the fulfillment of a wish, that is to say that there cannot be any dreams but wishful dreams …*
>
> **Freud (1900, p. 312)**

If we dream of something pleasant, it is easy to think that Freud was right about this dream principle. I have dreamt about old girlfriends, no doubt with a wish to revisit them. I once dreamt about meeting the actress Winona Ryder. Once again, however, these are overt themes. We should get to the latent meanings so as to help our patients more in the long run than the short; so where are the latent meanings in wish-fulfilling dreams? Freud said that it was with dreams about the death of a loved one that his readers presented him with the most arguments about this principle. Yet he stuck to his premise. Yes, even the death of a loved one is a wish-fulfilling dream.

In the simplest (and saddest) of circumstances, we could imagine a loved one in great pain with a terminal illness. We might dream that our loved one dies to remove them from pain or to send them to heaven (or whatever our beliefs might be about an afterlife). Thus, our dream is a wish-fulfilling

dream in order to provide a greater good. However, there might also be a lesser good, and that is that we are also removed from a painful situation by their death. No more tears, no more sad times for us, perhaps no more financial burden of the loved one. Perhaps there could even be insurance money? Although our conscious mind may be repelled by the thought, our unconscious mind may not, and it may be useful for our patient's conscious mind to accept this possibility. Excessively strong conscious resistance may suggest excessively strong unconscious desires, and the result could be even more vivid dreams, or much worse. The patient may be involved in an "accident" with their loved one in real life, and this accident might have been prevented had the therapist been able to confront the patient with their unconscious but frightening desires.

How did Freud explain the death of a loved one who was healthy? At this point, Freud reverted to the heart of his psychoanalytic theory. He offered empirical evidence during his time that men more often dreamt about the death of their fathers and women about the death of their mothers. Thus, a man who dreams about the death of his father is once again replaying his Oedipus conflict from when he was young and viewed his father as his rival for his mother's affection. Thus, he wished his father out of the picture or dead.

Freud also believed that many feelings, even love, contain an essential ambivalence, so even love has its dark side — hate. Again, our conscious minds may rebel at the thought. "It is not possible," a patient says, "I love my mother; I do not hate her." However repugnant the thought may be, there must be ways in which the patient's mother had in some way neglected or disappointed the patient. Maybe the patient's mother was too self-absorbed, doted on another sibling, or was not rich enough. Perhaps the patient's mother did not love the patient enough. Perhaps, there were too many other siblings. Perhaps there was a sickly sibling who received most of the mother's attention. It is easy to imagine a patient who feels that their psychological problems are largely due to their mother. According to Freud, there had to be some long-forgotten resentment. It would be impossible for our mothers to have been perfect. Now, perhaps, more than one ancient unconscious issue transforms itself into a wish-fulfilling dream — a loved one's death.

How did Freud explain the dream of the death of a sibling as wish-fulfilling? For some patients' dreams, this is easy. We do not even have to use Freudian theory. Some patients are on terrible terms with a sibling. The dream death of a sibling may not only represent an unconscious wish but a

very conscious wish as well. The history of the world is certainly replete with real examples of fratricide and sororicide, but if we do revert to Freudian theory, he claimed that older and more powerful siblings typically bullied the younger, less powerful ones. The younger siblings had to endure this bullying. However, later in life, they dream of their older sibling's death. According to Freud, it is this old unconscious death wish that has come back, and, somewhat ironically, the dreamer feels guilty about having this dream. The dreamer may even protest to the therapist: "But I don't wish my brother dead!" According to Freud, the dreamer at one time did wish his brother's death. Also, according to Freud, the manifest content of a dream may be triggered by more than one unconscious element, so dreaming of a brother's death may be the condensation of more than one unconscious issue. However, do not despair that you may not be able to figure out all of the unconscious issues for a dream. Freud also noted that it is in fact never possible to be sure that a dream has been interpreted completely.

## Freud's recurring dreams: Otto and Irma

I will use one of Freud's own dreams to highlight this wish-fulfillment principle and to reinforce some of the other points that I have made. In *The Interpretation of Dreams*, Freud (1900) presents a dream about his family doctor, Otto:

> *My friend Otto was looking ill. His face was brown and he had protruding eyes.*
> **Freud (1900, p. 303)**

Freud offers his own interpretation. He suggests that Otto actually represents "Professor R." whom Freud admires, because Professor R. only earned that title later in life, something Freud admitted that he wished very much he could also do (Freud was denied an academic position because of antisemitism). So, Freud's interpretation was that he wanted to be a professor.

I could not argue with Freud on this interpretation, because it seems quite plausible. However, remember that manifest content can have more than one unconscious cause, and I strongly believe that we have tremendously strong defenses against the unconscious issues we fear the most. In Freud's case, he actually tells us the issue that he fears the most. After presenting the dream, he says: "But where was its wish-fulfillment to be found? *Not in avenging myself on my friend Otto* …" (p. 304) [italics mine].

However, Freud appears to have engaged in the ego defense of reaction formation, perhaps, by protesting too much. In one of my most vivid examples of a therapist's naïveté in this regard, one of my master's students had a practicum at the local mental health center. As we began to discuss the case, I asked him why his patient had come to the center. "Not because she was afraid!" was his strongly stated answer. I asked him why he said that. He said that he asked her that question at the beginning of the interview, and he said that she stated her answer very firmly, "Not because I'm afraid!" Why did his patient come into the center? I firmly believe that she was afraid or highly ambivalent about something in her life.

Freud was, at the very least, ambivalent about his feelings for Otto. Certainly, he had consciously positive feelings about Otto. He stated that, "Otto is my family doctor, and I owe him more than I can ever hope to repay: he has watched over my children's health for many years … " Yet, could it not be that Freud was professionally jealous of Otto? Otto treated Freud's children successfully for years. Couldn't Freud have developed some unconscious resentment toward Otto? After all, Freud was also a physician, but he was prevented from treating his own family members by medical ethics, and Freud gives us a hint of this resentment when he stated earlier in *The Interpretation of Dreams*, " … how awkward it is, when all is said and done, for a physician to ask medical treatment for himself from his professional colleagues."

Further, was Freud a complete saint? Was he above marital jealousy? Freud wrote that Otto had visited his home on the dream-day and stated, "my wife remarked that he looked tired and strained." I could imagine a jealous husband resenting the fact that his wife worried more about his colleague than about him. Freud had also noted, "I owe him more than I can ever hope to repay … " Therefore, it is not hard to imagine that Freud wished to sicken Otto in his dreams. This way, Otto might die (a slow death!), and Freud would not have to repay the debt. Plus, Freud rids himself of a competitor for his children's and wife's affection and rids himself of a professional rival.

If Freud was alive and in dream therapy with me, I might circumvent his resistance by saying: "You said you did not wish to avenge yourself on your friend Otto. Humor me for a while, and tell me in what possible ways, no matter how remotely possible they may be, that you *do* wish to avenge yourself upon Otto." It helps, of course, if the therapist already has some hypotheses about the nature of this unconscious wish. Listening carefully to the patient's life story will help promote this hypothesis formation.

Remember, a bad hypothesis is better than no hypothesis (and a good hypothesis is better than a bad one!). You can later test your hypotheses simply by asking directly questions of your patient (or client).

Freud reported many of his own dreams and offered his interpretations. In virtually all of them, there are rich and alternate wish-fulfillment interpretations that Freud does not offer nor could we realistically expect him to. Again, what is hidden wishes to remain so, and no mere superficial probing of the unconscious by the conscious will bring up this material. Here's another example of wish-fulfillment in one of Freud's dreams from *The Interpretation of Dreams*. Irma, he writes, was a young lady who had been one of his patients in psychoanalytic treatment. He said that she was on "very friendly terms with me and my family." However, Freud said that her treatment had ended in only partial success, and:

> *I had proposed a solution to the patient which she seemed unwilling to accept. While we were thus at variance, we had broken off the treatment for the summer vacation. One day I had a visit from a junior colleague, one of my oldest friends [Otto], who had been staying with my patient, Irma, and her family at their country resort. I asked him how he had found her and he answered: 'She's better, but not quite well.' I was conscious that my friend Otto's words, or the tone in which he spoke them, annoyed me. I fancied I detected a reproof in them …*
>
> **Freud (1900, p. 138)**

Freud (1900) said he wrote out Irma's case history that night, and the next morning he reported this dream (which I have edited for the sake of brevity):

> *A large hall — numerous guests, whom we were receiving. Among them was Irma. I at once took her on one side, as though to answer her letter and to reproach her for not having accepted my 'solution' yet. […] I took her to the window to look down her throat, and she showed no sign of recalcitrance […] My friend Otto was now standing beside her as well, and my friend Leopold was percussing her through her bodice and saying: 'She has a dull area low down on the left.' […] My friend Otto had given her an injection … Injections of that sort ought not to be made so thoughtlessly. […] And probably the syringe had not been clean.*
>
> **Freud (1900, p. 139)**

Freud proceeded to analyze this dream, nearly line by line. It consisted of his various associations to the numerous dream elements. He finally summarizes the meaning of the dream as a wish-fulfillment dream whereby he acquits himself of any responsibility for Irma's continuing problems. Furthermore, Freud sees that he tries to blame Otto for Irma's pains, and thus extracts a measure of revenge upon Otto for his imagined reproof of Freud the previous day.

It was a noble attempt by Freud to interpret the latent meanings of his dream. However, given that Freud attached the greatest significance to human sexuality as the origin for psychological problems, it is curious that his interpretation barely addressed this issue, at least with regard to himself. First of all, Freud dreamt of Irma. With his own dream principle, he states that every dream is a dream of wish-fulfillment. Therefore, even the manifest meaning of this dream tells us that he wishes to dream of Irma. After he gives his long interpretation of the meaning of the dream, he tells us she is a young widow, and he brings this fact up right after he states the premier importance of sexuality to nervous disorders like Irma's. Second, Freud introduces Otto into the dream, the same Otto who served as Freud's family physician and his rival. Freud's own interpretation of Otto in the dream is that Freud wishes to blame Otto for Irma's continuing problems, thus absolving himself. Curiously, however, Freud has his friend Leopold, another physician, with Otto standing by, "percussing" Irma through her bodice. Percussing is a medical procedure whereby the physician strikes or taps the patient's body for diagnostic purposes, and Freud's own interpretation is that good physicians may examine children without their clothes on, but that it is only appropriate to examine adult females with their clothes on. It is, at the very least, an interesting choice of body areas for Freud to have "wished" his friends to examine. Third, Freud finally has Otto "inject" Irma, and then worries about a dirty "syringe." It appears to me that these images can be viewed as thinly veiled sexual innuendoes. The injection may refer to sexual intercourse, and the dirty syringe might be a syphilitic penis. Before you might object, Freud (1900) later stated:

> *It is fair to say that there is no group of ideas that is incapable of representing sexual facts and wishes.*
>
> **Freud (1900, p. 266)**

Freud also said in his book that he discussed the problem of prostitution with the governess of his children "in order to influence her emotional life — for this had not developed quite normally … " and then he dreamt about a word that made him freely associate to the word 'syphilis.'

It is not unreasonable to assume that Freud had repressed sexual desires for Irma. The manifest content of the dream flirts seductively with sexual topics and so does the latent content. Again, if Freud were in therapy with me, and I encountered strong conscious resistance to this interpretation, I might ask Freud to humor me again, and tell me in what ways he might find Irma sexually attractive. On the one hand, I might be accused of encouraging Freud's sexual fantasies. However, becoming aware of sexual desires is different than acting upon them. If one is aware of one's sexual

attraction to another, then one has the option of making fully conscious decisions about marital fidelity instead of acting impulsively, and perhaps regretfully, and then claiming that one's infidelity was an "accident" or making an excuse such as "I don't know what happened." This technique does encourage people to take full responsibility for their actions.

Another puzzle for Freud from his critics was the dream of being punished or dreams full of anxiety. How could those possibly be wish-fulfilling dreams? One possibility that Freud suggested was that the ego, although asleep, played a larger role than previously thought in the dream process. Thus, when a repressed desire or wish was expressed in the dream material, the conscious ego reacted indignantly or violently. Thus, the dreamer might be awakened by a sudden burst of anxiety created by the ego or the sleeping dreamer is punished by the ego in the manifest content of the dream for expressing such a disgusting and inappropriate desire. The other possibility offered by Freud is subtly different. Freud thought that the punishment was created by the unconscious, and thus the repressed wish or desire was to be punished. It is fairly easy to imagine that the latter could be true for many types of psychopathological disorders, such as the self-defeating personality, or in masochistic personalities. To remain in a true Freudian vein, themes of bondage and punishment are common in surveys of normal, healthy adults. It is not so outlandish then to imagine punishment in dreams as either a repressed desire or a conscious desire.

## Freud: not all dreams are wish-fulfilling

Nightmares and troubled dreams after traumatic events like war and childhood sexual trauma eventually forced Freud to rethink his adamant stand that all dreams were wish-fulfilling. In his 1920 book, *Beyond the Pleasure Principle*, Freud reluctantly recognized that nightmares often developed after these traumatic experiences. I will more fully discuss the reasons for his change of heart in Chapter 7, which deals with troubled sleep and dreams. At his point, it may suffice to say that he did modify his stand and came to admit that not all dreams were wish-fulfilling. He did propose that repeated nightmares might be the ego's way of gaining mastery over troubling waking issues.

## Freud's explanation for flying dreams and a physiological explanation

In order to explain flying dreams, Freud reverted to one of his original explanations for many wish-fulfilling dreams. He thought that few children did not have a father or uncle who would throw the child happily into the air (and catch them on the way down). Thus flying dreams, according to Freud, were a desire to be young again, to regress to a happier, more carefree state where most of our primary needs were met without effort. Whether our childhoods were actually happier and more carefree may be irrelevant. For Freud it was enough that we now think that our childhoods were happier and carefree in order to have this wish-fulfilling dream.

There is also a physiological explanation for flying dreams. One interesting phenomenon during REM sleep is REM incorporation. One theory has it that, during REM, we may be both paradoxically involved in our dream state and yet semi-aware of our environment. Parents, in particular, may awaken quickly if their children call their name or if a loved one shouts 'fire.' There may be semiconscious sleep filters that do allow certain material into our sleep consciousness to awaken us. Also, some physiological urges obviously make their way into our dream material. The most common of these urges is the desire to urinate, and frequently in the early morning when our bladders are reaching their fullest limits, our dream story may turn into a search for a toilet.

When I was growing up in Miami, we used to fly model planes with tiny gas engines. One morning, I dreamt I was flying my favorite model plane (a P-40 Warhawk), when I pictured it getting closer and closer to flying over my head. In reality, outside, a Flying Boxcar (C-119) was spraying our neighborhood for a fruit fly infestation. As the plane outside flew right over our house, the plane in my dream flew right over my head, and the noise outside became the noise inside, and I nearly fell out of my bed, I was awakened so abruptly. This is an example of REM incorporation, where REM sleep selectively incorporates environmental and internal physiological stimuli into our dreams.

Thus, flying dreams may actually be examples of REM incorporation of a physiological stimulus. This flying aspect may also represent the phenomenon of *muscle atony* (the overall sudden loss of muscle tone) that occurs at the onset of REM sleep. In fact, before the discovery in 1953 that vivid dream sleep was accompanied by rapid eye movements, the onset of dream sleep was measured by a sudden loss of muscle tone in the neck muscles.

The choice of neck muscles was merely convenient, because the other EEG electrodes were already pasted about the head. Thus, muscle atony at the onset of REM sleep may have been incorporated into the dream as flying, soaring, or being cast into the air like a child. We might also explain the frequent dream of being awake and paralyzed as a variant of the same REM incorporation phenomenon. The dreamer is not awake but dreams that they are, and, further, the dreamer incorporates the loss of muscle tone as being awake but paralyzed. Interestingly, Freud (1900) pondered the meaning of the "sensation of inhibited movement which appears so commonly in dreams …" (p. 371) and offered what he considered "an easy but insufficient answer" that a motor paralysis prevails in sleep and people become aware of it while dreaming. I would counterargue that it was a sufficient and prescient answer. As noted in Chapter 2, this muscle paralysis is caused by inhibitory neurons that become active at the onset of REM that prevent us from acting out dreams.

## A REM sleep explanation for reports of alien abductions and wish-fulfillment

It is also possible that REM incorporation of muscle atony may also explain the reports of alien abductions. Many seemingly normal people (other than their belief in UFOs) have reported being abducted by aliens. Their reports frequently contain either the story that they are in bed, paralyzed, or abducted aboard a spaceship, or bound in some way and are being examined by the aliens. It is possible that these people are simply fulfilling a wish by dreaming about aliens (which is their conscious belief), and at the same time, their sleep filters are trying to explain the muscle atony accompanying REM sleep. Thus, they dream they are paralyzed or bound. Also, this may account for why their reports seem so real and by any of the standard physiological measures of lying (although unreliable; like galvanic skin response), there is no indication that they are making up their stories. Certainly, their stories are no less real than a vivid dream or nightmare, particularly the emotion or affect that is generated during the dream. We might argue with these reports and say, "but it was only a dream," but we should be careful about denying the strength of the emotion or affect. How silly we would be if we said, "but it was not real anxiety," or "it was not real fear." As for the aspects of alien abduction dreams where they report being sexually probed, I shall not speculate further, except to note that *some* dreams are obviously wish-fulfilling.

## Summary

1. Freud believed in the manifest or obvious meaning of dreams and in the latent, hidden, or symbolic meaning of dreams. He thought the latter might be more useful to interpret.
2. Freud believed in dream condensation, where more than one unconscious issue could condense into a single dream image.
3. Freud believed in dream displacement, where fearful or highly charged unconscious issues could be changed into a more approachable subject matter.
4. Freud initially believed that all dreams are wish-fulfilling dreams but later admitted some kinds of nightmares, especially after highly traumatic events, may not be wish-fulfilling.
5. Freud believed that any dream idea could represent sexual facts and wishes.
6. Aspects of our current external environment may be directly incorporated into our dreams. Physiological states (such as a full bladder) can also be immediately incorporated into our dreams.
7. Flying dreams may be examples of REM incorporation of the muscle atony that occurs at the onset of REM sleep.
8. Reports of alien abductions and muscle paralysis may actually be wish-fulfilling REM dreams accompanied by muscle atony.

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# CHAPTER 5

# Jungian dream analysis

*Unfortunately, dreams are difficult to understand … a dream is quite unlike a story told by the conscious mind … Images that seem contradictory and ridiculous crowd in on the dreamer, the normal sense of time is lost, and commonplace things can assume a fascinating or threatening aspect.*

***C. Jung (1964, p. 39)***

**Fig. 5.1** Carl Jung (Wikipedia). *(Credit: Tom Dennis with the original artwork.)*

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Carl Jung (1875–1961; Fig 5.1) was a Swiss psychiatrist and contemporary of Freud, although 19 years his junior. He began studying with Freud in 1907. Their relationship developed to the point where Freud chose Jung to carry on his psychoanalytic activities, and called Jung his "son" and "crown prince." However, Jung was obviously independently brilliant and creative, and he ultimately developed a more positive view of the unconscious. They also disagreed on the nature of God. Freud maintained that God did not exist and was created out of reaction formation. Jung saw the development of God images in all cultures as a kind of proof of God's existence. By 1914, their split was so divisive that, although Freud lived 25 more years, they never spoke to one another again.

Jung's written works were always designed for sophisticated audiences. Less than 2 years before his death, he was approached by the British Broadcasting Corporation for an in-depth interview. The program was seen by a book publisher who thought it a shame that Jung, intensely fascinating, humorous, and charming, had never been popular with the masses. Jung's writings were considered too difficult to understand for the average reader. The book publisher approached the TV interviewer about having Jung write a book for the average person. The TV interviewer thought it was a great idea and approached Jung. Jung listened to a 2 h presentation while in his garden and then firmly said 'no.'

The TV interview had reached people with whom Jung would not normally have come into contact, and he was quickly inundated with letters from all over the world. However, that alone did not change his mind. He went to sleep one night and had a dream. In the dream, instead of his customary sophisticated audience, he saw himself in a public place addressing a huge throng of people. They were not only listening to him carefully, but they also understood him! Because Jung's psychological theories were intimately tied to dream messages, he could hardly refuse to listen to this prophetic dream. A short while later, he agreed to do the book, called *Man and His Symbols*. The book had two conditions attached to its undertaking: it was to be a collective effort by Jung and his closest colleagues; and the TV interviewer would serve as the arbiter between the authors and the publishers. Jung planned the structure of the book, chose his colleagues and their topics, and wrote the main and first chapter, "Approaching the unconscious." He died on June 6, 1961, just 10 days after he had completed his chapter and had approved the drafts of the other authors.

Although seemingly impossible, Jung probably believed in the power of the interpretation of dreams even more than Freud. I once opened a fortune cookie that read, "A dream of happiness is real happiness." In a way, this sums up Jung's philosophy of dreaming: dreams are as real as any other psychological phenomena. Furthermore, dreams are intensely personal. They cannot be decoded by any standard glossary of meanings. Thus, you cannot buy a dream interpretation dictionary, look up dreams about lobsters, and read that it means your father was a callous person. Jung thought that dreams were messages from an individual's unconscious, and, even though all people share a collective unconscious, the messages are, nevertheless, personal and individual. A person's dreams cannot be interpreted by a glossary, codebook, or dictionary. On the importance of dreams and these messages (in an anthology of his writings, *Psychological Reflections*), Jung (1970) wrote the following:

> *The dream is a little hidden door in the innermost and most secret recesses of the soul, opening into that cosmic night which was psyche long before there was any ego-consciousness, and which will remain psyche no matter how far our ego-consciousness extends.*
>
> *Nobody doubts the importance of conscious experience; why then should we doubt the significance of unconscious happenings? They also are part of our life, and sometimes more truly a part of it for weal or woe than any happenings of the day.*
>
> **Jung (1970, p. 53)**
>
> *Dream psychology opens the way to a general comparative psychology from which we may hope to gain the same understanding of the development and structure of the human psyche as comparative anatomy has given us concerning the human body.*
>
> **Jung (1970, p. 54)**

Freud vacillated somewhere in between standard meanings and personal meanings for dream symbols. Freud clearly rejected strict decoding methods for interpreting dreams, yet he found fascinating ancient dream interpretation approaches as in the *Oneirocritica*. As noted earlier, the *Oneirocritica* used a combination of both standard meanings and also the circumstances of the dreamer, such as the dreamer's occupation.

Freud (1900) also noted that dream symbols are as old as language itself. He wrote:

> *Dreams make use of this symbolism for the disguised representation of their latent thoughts. Incidentally, many of the symbols are habitually or almost*

> *habitually employed to express the same thing. Nevertheless, the peculiar plasticity of the psychical material [in dreams] must never be forgotten.*
>
> **Freud (1900, p. 387)**

Only 12 pages after this firm warning, Freud entitles a section in *The Interpretation of Dreams*, *The Genitals Represented by Buildings, Stairs and Shafts*. Personally, I think Jung's approach to dream symbol interpretation makes more sense. Although the dream of a key going into a lock might be tempting for Freudians to interpret as a sexual act, it seems intuitively more reasonable to vary the interpretation for a prisoner, locksmith, or treasure hunter. In *Man and his Symbols*, Jung (1964) wrote:

> *It is plain foolishness to believe in ready-made systematic guides to dream interpretation, as if one could simply buy a reference book and look up a particular symbol. No dream symbol can be separated from the individual who dreams it, and there is no definite or straightforward interpretation in any dream. Each individual varies so much in the way that his unconscious complements or compensates his conscious mind that it is impossible to be sure how far dreams and their symbols can be classified at all.*
>
> **Jung (1964, p. 53)**

> *It is for this reason that I have always said to my pupils: 'Learn as much as you can about symbolism; then forget it all when you are analyzing a dream.'*
>
> **Jung (1964, p. 42)**

## The compensatory nature of dreams

Jung thought symbols represented more than their obvious meaning, and he thought this wider "unconscious" meaning could never be fully understood. He traveled throughout the world examining the symbols of various cultures, but he felt that all people produced symbols "unconsciously and spontaneously" through their dreams. He also viewed consciousness as a recent and slowly developed process, and he thought that dreams were transmissions of unconscious impulses and reactions to consciousness. Freud called them archaic remnants that could not be explained by anything currently in the dreamer's life, and he thought they might be the "aboriginal, innate, and inherited shapes of the human mind." However, Jung objected to the idea that they were simply remnants. The word "remnant" has the connotation of a scrap, a leftover, or being unused. Jung thought that these unconscious messages were far more important than that. He felt that dreams served a compensatory function; that is, dream messages were attempts to compensate for "a particular defect in the dreamer's attitude to life."

Jung (1970) stated two fundamental points of dreams: First, the dream should be treated as a fact, about which one must make no previous assumption except that it somehow makes sense; and second, the dream is a specific expression of the unconscious. Jung noted that dreams do have a definite and purposeful structure which usually indicated an idea or intention. Jung felt that this purpose was not always understandable but nevertheless very important. Thus, he said this about a dreams and its intention:

> *Its dimensions in time and space are quite different; to understand it you must examine it from every aspect just as you may take an unknown object in your hands and turn it over and over until you are familiar with every detail of its shape.*
>
> **Jung (1970. p. 64)**

Jung believed that consciousness had a natural tendency to fear and deny the unknown. This tendency, called *misoneism*, Jung borrowed from anthropologists. It described a fear of new things, a fear of novelty. Thus, Jung was not surprised that people resisted the meanings of their dreams, even when dreams were trying to strike a balance. It was this latter tendency, the compensatory nature of dreams, that Jung felt was so important. However, Jung did not want us to view dreams, necessarily, as friends, or guides, or as moralistic. Dreams simply strike a balance between the "lopsided nature of … conscious mind" and the unconscious. Dreams are not moralistic. Jung (1964) wrote:

> *Our actual knowledge of the unconscious shows that it is a natural phenomenon and that, like Nature herself, it is at least neutral. It contains all aspects of human nature — light and dark, beautiful and ugly, good and evil, profound and silly.*
>
> **Jung (1964, p. 94)**

> *One cannot afford to be naïve in dealing with dreams. They originate in a spirit that is not quite human, but is rather a breath of nature — a spirit of the beautiful and generous as well as of the cruel goddess.*
>
> **Jung (1964, p. 36)**

About the necessity of the compensatory nature of dreams, Jung (1964) wrote:

> *For the sake of mental stability and even physiological health, the unconscious and the conscious must be integrally connected and thus move on parallel lines. If they are split apart or 'dissociated,' psychological disturbance follows. In this respect, dream symbols are the essential message carriers from the instinctive to the rational parts of the human mind, and their interpretation enriches the poverty of consciousness so that it learns to understand again the forgotten language of the instincts.*
>
> **Jung (1964, p. 37)**

One example of this unconscious compensatory nature of dreams I saw in the dream of a 19-year-old college freshman. She was my patient for 10 weeks at a campus counseling center. She was an outstanding tennis player, tall, blonde, and buxom. Her presenting problem, she said, was her weight. Although she did not appear overweight by any means, we never missed a session without at least some reference to her "weight problem." Then she had this dream:

*I had this dream where I went downtown and I wasn't dressed. I was naked, and there were all these people looking at me.*

I immediately thought of Freud's wish-fulfillment principle and his interpretation that this dream was an old childhood wish to run about carefree and naked. I gently suggested to her the idea that the dream might contain a secret wish. She almost immediately and cheerfully agreed and suggested that she felt overwhelmed by her first year of college and all the work. She thought that the dream might be telling her that she did wish to be free of her studies and responsibilities, but then I remembered Jung's advice: explore the content of the dream with the utmost thoroughness, and I remembered his injunction:

*Let's get back to the dream. What does the dream say?*

I asked her what other kind of message the dream might be sending her. I was also direct. My intuition told me she was secretly proud about something. I remembered Fritz Perl's idea that, behind some secret we are ashamed to tell anyone, there is an aspect of that shame that we are secretly proud of. "What are you proud of about in this dream?" I asked her. She thought about it only briefly and said, "My breasts." It was the first time in therapy that I heard her say anything positive about her body. She then got quiet, and, as if in response to her own thoughts, she said, "Well, I can't very well go about bragging about them, can I?" We both agreed that she probably could not, but I offered her the explanation that perhaps it was the one-sidedness of her complaints about her body that made her unconsciousness force a compensatory balance. This example also provides support for Freud's idea that a single dream element may have been condensed from more than one dream thought or latent issue.

Jung's patients were frequently in their late thirties to early fifties and economically successful. Just as frequently they often had a similar complaint. Despite their material successes, they were bored. Jung interpreted this boredom as a symptom of the split between the conscious and

unconscious parts of the psyche. Boredom was a symptom that this person had cut off their unconscious mind and that this person had ignored the rich symbolic history presented by their dreams. No wonder material successes brought little satisfaction. Their ultimate and most satisfying treasure was within.

However, once again, do not be misled by dreams. For some patients, Jung did not discuss dreams. Remember my master's student who thought his patient had come to him but "not because she was afraid?" Even in their first session, he was interpreting her dream about her hands on fire, offering her his rich and learned insights from his voracious dream readings. I learned she was unemployed, on welfare, single, and about to lose her two children to social services for neglect. Yet he wanted to talk about her dreams! I was certain that this was a situation where she was already overwhelmed by her unconscious thought processes, and I was correct. My student told me that she believed in dreams, the power of crystals, and followed zodiacal advice like a religion. I explained to my student that this woman was already in contact with her unconscious, in fact, she was overwhelmed by it. In a case like this, Jung might have advised driving a wedge between her unconscious thoughts and impulses, and her flimsy consciousness. Her therapy needed to consist of developing her conscious autonomy in very specific ways, like how to get a job and how to keep her children. Instead of therapy homework like bringing in a dream, she should be thinking of ways to get a job. If that was too difficult, then she might even be asked to bring into therapy the classifieds section of the newspaper, and together she and her therapist might go over the job advertisements. Further therapy might consist of checking bus routes, how to go shopping for food for her children, etc.

Apparently, Jung was a masterful and intuitive therapist, and he realized that one can teach others the knowledge and skills of therapeutic techniques, but there still remained the art of therapy, which could not be taught. When a patient came to Jung complaining of insomnia, Jung sang a lullaby and put his patient to sleep. When a patient said they felt cut off from their religion, Jung asked for a Bible, and they did Bible readings.

Fortunately, however, most good therapists believe that practice, time, and experience does make one a better therapist. There is a popular sports story that a famous sports figure player, after making a great play or sinking a great shot, heard a critic say that he was just lucky. The player is reputed to have said, "The harder I work, the luckier I get." I think this practice principle also holds for dream analysis.

## Dreams as a spontaneous self-portrayal

As early as more than 2500 years ago, in India's holy book, the *Upanishads*, came this quote about dreams, "There are no [real] chariots in that state, no horses, no roads but he himself [creates] chariots, horses, and roads … He indeed is the maker." Jung (1970) continually hammered home this fact. He viewed that dreams may be a reflection of:

> … *ineluctable truths, philosophical pronouncements, illusions, wild fantasies, memories, plans, anticipations, irrational experiences, even telepathic visions, and heaven knows what besides.*
>
> **Jung (1970, p. 57)**

More importantly, Jung (1970) saw them essentially as a spontaneous self-portrayal in a symbolic form. He wrote:

> … *[Dreams] are nothing less than self-portraits of the psychic life-process.*
>
> **Jung (1970, p. 56)**

> *The whole dream-work is essentially subjective, and a dream is a theatre in which the dreamer is himself the scene, the player, the prompter, the producer, the author, the public, and the critic.*
>
> **Jung (1970, p. 66)**

I think that there is ample evidence, highly obvious, ancient, and logical, that dreams are an entirely spontaneous self-product. Jung, in particular, thought that every image in a dream potentially contained a useful self-reflection. If you falter or begin to doubt in your examination of any aspect or image in a patient's dream, remember that Jung felt that all of these images might be spokes of a wheel. Ultimately, any of these spokes may lead us to the patient's center. What might be at the center? If we use dreams as our vehicle, then we may come into contact with the most ancient wisdom of our own psyche. Jung envisioned this wisdom as a two-million-year-old person within us. It is the accumulation of two million years of purposeful, intelligent, and wonderfully creative evolution. Jung (1970) wrote:

> *Together the patient and I address ourselves to the two-million-year-old man that is in all of us. In the last analysis, most of our difficulties come from losing contact with our instincts, with the age-old unforgotten wisdom stored up in us. And where do we make contact with this old man in us? In our dreams*
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> **Jung (1970, p. 76)**

## The archetypal nature of dreams

Jung believed that the psyche consisted of all of our emotions, thoughts, and behaviors, and had three major parts: the ego, which functions on a conscious level; the personal unconscious, which contains forgotten, suppressed experiences or experiences that fail to attain a conscious level; and the collective unconscious, an inherited part of our psyche whose contents may never have been conscious. This idea of the collective unconscious was one of Jung's most controversial hypotheses and, perhaps, the most fascinating.

The personal unconscious for Jung contained complexes. These are clusters of thoughts, feelings, and memories that may have been conscious at one point, but now have been relegated to the personal unconscious by suppression or repression. Also, in the personal unconscious are fleeting thoughts or feelings that, for a variety of reasons, did not attain consciousness. However, these complexes have ramifications for the ego, because people will avoid, hesitate, or postpone actions that arouse their complexes. All of the latter actions will occur without one's conscious awareness of the reasons. Jung once said: A person does not have a complex; the complex has the person.

Although the present day usage of the word "complex" does originate from Jung, his idea about an inherited unconscious has probably created greater interest. Freud had earlier called the symbolic images in dreams "archaic remnants." Jung strongly objected to the notion that dream symbols had any connotation as being "lifeless" or "meaningless." Jung viewed dreams as a kind of bridge between the ancient pictorial and symbolic language of the instinctive world and the conscious rational world. It is important to remember that Jung viewed the unconscious as a repository or museum of human evolutionary history. Jung (1964) wrote:

> *Just as the human body represents a whole museum of organs, each with a long evolutionary history behind it, so we should expect to find that the mind is organized in a similar way. It can no more be a product without history than is the body in which it exists. By 'history' I do not mean the fact that the mind builds itself up by conscious reference to the past through language and other culture traditions. I am referring to the biological, prehistoric, and unconscious development of the mind in archaic man [sic], whose psyche was still close to that of the animal.*

> *This immensely old psyche forms the basis of our mind, just as much as the structure of our body is based on the general anatomical pattern of the mammal. The trained eye of the anatomist or the biologist finds many traces of this original pattern in our bodies. The experienced investigator of the mind can similarly see the analogies between the dream pictures of modern man and the products of the primitive mind, its 'collective images,' and its mythological motifs.*
>
> **Jung (1964, p. 57)**

In dreams, Jung believed that symbols occurred spontaneously, and they always stood for something more than the superficial meaning. However, their origins are hidden so deep in our past evolutionary history, that Jung believed they had no human source. At some level, Jung agreed with Freud about their nature: aboriginal, innate, and inherited shapes. Jung called these images "archetypes" or "primordial images." Jung cautioned against interpreting them as the simple equivalent of a mythological image. The actual dream symbol was a conscious representation of the "ancient, involuntary spontaneous manifestations of the collective unconscious." It is a collective unconscious, because all humans have universally inherited relatively similar archetypes.

Jung's arguments for these tendencies to form images come from animal instincts. He thought that it was not logical to assume that each newly born human would have to learn every specific way that humans behave. He argued that the "collective thought patterns of the human mind are innate and inherited." Could it be, he asked, that only humans are devoid of their evolutionary past in their psyches?

In fact, he argued that the evolutionary development of human consciousness might have been caused by an archetype. He gave the example of a bushman who killed his son out of frustration and anger while fishing, and then remembers this "moment of pain" forever. Jung thought that this emotional pain had the effect of waking people up and making them pay attention to what they are doing. If this awakening put someone at an adaptive advantage, then that person's genetic information was more likely to get into the gene pool in subsequent generations. In the case of the angry bushman, Jung even felt that there may have been an "archetype at work for a long time in the unconscious, skillfully arranging circumstances that will lead to a crisis." Thus, Jung saw archetypes as dynamic factors, making themselves known through impulses. As long as modern people protected themselves from the recognition of these archetypes, Jung thought that they would never be masters of their own souls.

## The five major archetypes of the psyche

According to Jung, five of these archetypes have evolved to the point where they exert a greater influence on the psyche. They are (1) *animus*, the male side of our personality; (2) *anima*, a female side to our personality; (3) *persona*, the many roles we play for society's sake; (4) the *shadow*, a dark, passionate, murderous, yet creative side of our personality; and finally (5) the *self*, an integrating force that attracts all other archetypes in a holistic, beneficial, unifying way. The archetypes are not inherited as specific ideas or symbols. Jung proposed that they are more like inherited predispositions to think in certain ways or to think about particular cross-cultural and universal themes, like God or mother. They are, as Jung said, "forms without content."

In dream interpretation, I have found it useful to examine these archetypes in a patient's dreams. However, I have found it the most useful to concentrate, at least initially, upon animus and anima, and interpret all male and female characters in a dream as the male and female sides of the dreamer's personality. Thus, even though a patient dreams about their mother, I would interpret this character as the mother side of their own personality. However, the five major archetypes do interact with and influence each other continually.

## Animus and anima

Jung thought that each of us, regardless of gender, has both male and female psychological and physiological sexual characteristics. Although present research leads us to believe that the single strongest component to our adult gender identity is inherited (Coolidge et al., 2002), one's environment also impacts the expression of this gender identity, and the environment obviously contains both male and female influences.

Are there any symbols for the Jungian idea of our inchoate bisexual nature? Indeed, there are. Ometeotl was the first god to exist, according to the Aztecs. Ometeotl means "two-god," and Ometeotl was not only self-created but also had male and female qualities. Interestingly, Ometeotl governed heaven at its highest level. This place was called Omeyocan, which means "place of duality," and, as a couple, Ometeotl produced four of the Aztecs' great deities. Hermaphroditus of Greek mythology is, of course, a classic archetypal symbol of bisexuality. Hermaphroditus rejected the love of a water nymph, and when he later bathed in her pool she clung

so tightly to him that they became one person with a woman's breasts and a man's genitals. In Hindu tradition, Ardhanareeshvara is half Lord Shiva and half Goddess Parvati.

Jung also proposed that the psychological sexual component of masculinity, animus, is typically repressed and unconscious in women, and the psychological sexual component of femininity, anima, is repressed and unconscious in men. There is also an archetypal duality in these gender archetypes, that is, they both have positive and negative attributes. Anima's positive female attributes are characterized by feelings, emotionality, sentimentalism, finding the right inner values, kindness, romance, gentleness, and wisdom. When a man pays attention to his anima, he may express himself creatively through "writing, painting, sculpture, musical composition, or dancing." Jung ascribed the common stereotypes in our society for his gender attributes. A very popular positive anima symbol is Mother Nature. I would add Magna Mater (a Roman mother goddess), the Blessed Virgin Mary; Sita, Radha, and Parvati from the Hindu epics; Aphrodite and Hera from Greek mythology; the Egyptian mother goddess, Neith, goddess Isis and the sky goddess Nut; Nu Gua, creator and protector of humanity from Chinese mythology; Glinda the good witch of the north from the Wizard of Oz; Princess Leia from Star Wars; and Lady Arwen, and Lady Galadriel from the *Lord of the Rings* trilogy.

The negative side of anima involves seduction and betrayal, being irrational or illogical, being overcome by emotion, irritability, depressed moods, insecurity, and a plethora of fears. According to Jung, the negative aspects of anima have been symbolized in many cultures by witches, the Germanic singing Lorelei who enticed men to their death, Greek sirens who also sang men to death by hunger, Kali, the murderous side of Parvati with her jewelry of corpses, Jezebel and Delilah from the Bible, and the evil Baba Yaga in Russian folklore.

The positive attributes of animus are strength, rationality and logic, action, courage, truthfulness, and "spiritual profundity." Its negative attributes are brutality, recklessness, silence, stubbornness, emotional coldness, dogmatism, and inaccessibility. Positive animus can be symbolized by Tarzan, Hemingway, Spock the Vulcan and Captain Kirk from Star Trek, Bilbo, Frodo and Strider from the *Lord of the Rings*, Luke Skywalker and Obi Wan Kenobi from Star Wars, Gandhi, Martin Luther King, Jesus, and Buddha.

Jung thought the strength of these attributes in an individual came from our parents; a man receives his individual anima attributes for better or

worse from his mother, and the woman's animus comes from her father. For example, an unloving, uncaring mother may imbue a man's unconscious anima with a mean, "waspish," "poisonous" attitude, according to Von Franz, a Jungian disciple.

## The persona

Animus and anima are also influenced by the persona archetype. The persona is a mask or role that we provide for society's sake. The persona is likely to consist of many different masks, and almost all of them operate totally without our awareness. For example, at home I may play the role of good husband with my wife, stern father with my daughters, professor at the university, and then rock star when I played music in nightclubs. These roles actually help me to be more efficient and thus promote my adaptation and success in my dealings with society, because I do not have to reexamine how I am going to act in every new situation or interaction with others. However, there is a danger in overidentification with one's persona. For example, medical doctors, perhaps involved in daily life-or-death decisions, may overidentify with their doctor's mask of confidence. Many times, they may be quite unsure of the outcome of their decisions in a hospital, but they cannot act as if they are unsure. Acting unsure would upset the patient, the patient's family, and the hospital staff. However, it is possible that some medical doctors carry this "act" or persona home where they confidently espouse family advice with the same surety, officiality, and dogmatism. Typically, this style of parenting and spousing does not create happiness or engender love in family members. Politicians may also overidentify with their smiling, glad-handing personas.

Potentially, underidentification with persona is also a problem. Who has rejected personas in our society? Some of my students propose that rebels, like bikers, have rejected society's demands for a persona. However, they are as guilty as professors in creating a persona. On the surface, it is still a persona, a biker's persona, but a persona nonetheless. A biker's persona consists of riding a Harley Davidson motorcycle (never a Honda, even if it looks like a Harley!), wearing black clothes, a black vest, boots, having a chain from one's wallet to a belt or a belt loop, a motorcycle timing chain for a belt, and perhaps a tattoo of a spider web on the elbows. No, a biker's persona may superficially appear to be a rejection of a societal persona, but it is still a persona and a very strong one. Notice, also, that a biker's persona helps a biker to adapt to their biker's society. When a biker dressed in their

colors pulls up on a Harley to a biker's rally, they "fit in," and they are accepted as a member of that society without undue examination or challenge.

Probably a hermit is a good example of someone who has rejected their persona. The hermit is a classic loner who resists the masks of society, including son or daughter, brother or sister, friend or enemy. I read a story about a true hermit, a society dropout, who lived deep in a South American jungle (Cahill, 1987). A journalist trudged for days through the jungle and stumbled upon this hermit's hut. The journalist was amazed that a formerly civilized person would live this far from people and so deep in the jungle. The journalist thought, perhaps, that the hermit's tale would make a great story. However, the hermit's first words to the journalist were, "When are you leaving?"

Our personas, then, usually keep our gender roles tightly defined. Thus, a man's "manly" persona keeps his anima repressed, and a feminine persona may keep a woman's animus repressed. Jung believed that it was necessary to liberate these repressed aspects of our psyche in order for us to develop to our complete potential. However, it may not be enough to simply liberate a man's anima nor a women's animus. The liberation must be coupled by a reintegration of both gender archetypes, and this is a difficult task. A man may become feminized by allowing his anima to develop, but he must be able to join and synthesize his two gender archetypes so that they exist in harmony and so that his animus is not subjugated in the process. I had a friend who was getting married for the second time. We were all in our 30 and 40s. Six of us got together on the eve of his bachelor party. What should we do? Interestingly, opinion was evenly divided: go out and party, or stay home and talk meaningfully. The groom made his decision that we would stay home and talk. Drink, yes, but talk, and that is what we did for hours. The next day, we were asked by our girlfriends and wives what we did. Ironically, there was some laughter and kidding about what we had chosen. This reflects a man's dilemma: how to develop and release anima without losing animus. The late author Robert Bly (1992) wrote insightfully of this difficult balancing act for men between masculinity and femininity in his book, *Iron John*.

A woman's dilemma, of course, is equally complex. For example, the emphasis on women's sports has been a tremendous boon to their psychical development. It has developed confidence, camaraderie, healthy competition, courage, physical development, and many other positive attributes, and this experience was virtually unavailable to women only a

generation ago. However, it has not been without a cost. Women who participate in sports have been criticized by their own mothers, brothers, fathers, boyfriends, and even by some other women as being too masculine, too physical, etc. A woman can also overembrace this developing animus in the form of athleticism and as a consequence ridicule her brother (who is releasing his anima) for staying home and painting. The dilemma for the woman is how to express her animus yet keep her anima, being able to release animus but being able to integrate those aspects with her anima. The traditional old guards in every society are slow to relinquish their control and suppression. They (sometimes religion, sometimes politicians, etc.) typically fear change (Jung's term was misoneism) and protect the traditional animus in men and anima in women.

## The shadow

Another major archetype is the shadow. The shadow is the dark side of our personality. It is everything we refuse to admit about ourselves, and thus it visits us in our dreams, usually symbolized in the forms of people we hate. As Von Franz (a close colleague of Jung) wrote:

> *When an individual makes an attempt to see his shadow, he becomes aware of (and often ashamed of) those qualities and impulses he denies in himself but can plainly see in other people — such things as egotism, mental laziness, and sloppiness; unreal fantasies, schemes, and plots; carelessness and cowardice; inordinate love of money and possessions …*
>
> **Von Franz, 1964**

The shadow houses our ancient animal instincts. It is the source of our strongest emotions, creativity, vigor, and spontaneity. However, it is the shadow in us that allows us to kill other people, to be mean, spiteful, and hateful. Once the shadow has been aroused to action, particularly rage and anger, there is no reasoning with it. If the shadow and the conscious forces of the ego act in unity, the great forces of the shadow can translate into good works, prodigious tasks, and the like. However, if the shadow cannot sublimate its energies, then a person may self-destruct or harm others. Because the shadow is also a museum for our ancient primitive instincts, Jung postulated that it also contained the adaptive ability to make quick and proper decisions without undue hesitation. Again, however, if a person has worked to understand, release, and integrate their shadow, then their quick decisions may be effective and beneficial. If the shadow has been repressed or acts unbridled, the results may be highly ineffective or detrimental.

Further, inevitable conflict results when we project our shadow onto others. Von Franz saw political agitations as created by the projection of our shadows. She saw the projection of the shadow as "obscuring our view of our fellow men [sic], spoiling objectivity, and thus spoiling all possibility of genuine human relationships." She also noticed the Herculean task of trying to understand the shadow, because it is sometimes experienced as an irresistible impulse, and it resists being known or bridled. Simply trying to be honest with oneself does not often succeed. She noted that it might take a "brick … to drop on one's head to put a stop to shadow drives and impulses." Sometimes, she noted, a monumental "heroic decision" may stop the destruction from the shadow, but it is not likely. As an example of this brick-to-the-head phenomenon, I had a talented musician friend with a shadowy dark side: illegal drug use. He was finally arrested for only the first time after 12 years of various illegal drug use. However, it was a minor charge and was likely to be dismissed in court. While waiting to go to trial and swearing to me he was finished with drugs, he bought an illegal drug that was badly synthesized. He had a psychotic reaction, and he tried to remove his fingernails with a knife. He ended up in an emergency room nearly bleeding to death and in the throes of a psychotic episode that lasted for hours. Apparently and hopefully, that was his brick-to-the-head. It may have stopped his self-destructive drug use. It may have bridled his shadow while he sought healthier releases for it.

The shadow has been symbolized by dark destructive forces from time immemorial. One of the oldest symbols of the shadow comes from the ancient Persian religion, Zoroastrianism. Their essential tenet was a dualistic struggle between a god of good, Ormuzd, and the spirit of evil and darkness, Ahriman. Zoroastrianism also had a prescription for living one's life that consisted of a trinity: good thoughts, good words, and good deeds. Thus, Ahriman is probably one of the earliest symbols of the shadow. The Christian Bible has Satan, the Hindu Ramayana has Ravana who kidnapped Sita, and the Hindu trinity's Shiva has the destroyer as his shadow.

Like the other archetypes, the shadow also contains a duality of evil and good. One good aspect of the shadow, as previously mentioned, is its ability to make quick decisions. The shadow is also seen in the creative process. Interestingly, extremely creative artists like Picasso, Dali, and Jackson Pollack had a destructive element in their creativity. They were able to translate into their pictures and sculptures their inner realities, and these realities were personal, highly original, and destructive in the sense that they

copied no other artists. They were able to explicate their inner forces in such a way that other people were able to recognize and appreciate the unconscious representations, although perhaps not fully understanding what they saw. Some people gave their art the highest of compliments in the world of symbols by saying, "I don't know what it means, but I like it."

## The self-archetype and individuation

The last of the major archetypes is the self, and it was considered the most important by Jung. The selfarchetype attracts all the other archetypes. It is a unifying force in the psyche. It is a self-actualizing force. It motivates a person to become whole. Jung's favorite symbol of the self was a *mandala*, which is a Sanskrit word for circle. Mandalas are frequently seen in ancient eastern and oriental art, particularly in religious works. They usually consist of circles within an outer square and squares within the inner circles. Jung thought the circles represented wholeness or oneness, and the squares represented another ancient numerical archetype of fourness or quarternity. Fourness has been symbolized, according to Jung, by our representation of the seasons into winter, spring, summer, and fall, the ancient elements of earth, wind, fire, and water, the four horsemen of the apocalypse, etc. Again, the unconscious influence of the self-archetype and the quarternity archetype can be seen in modern culture as well.

In *The Wizard of Oz*, Dorothy's search to get home may reflect an active, conscious attempt to understand her unconscious self and to sense a "oneness" and "wholeness" in doing so. There is a classic quarternity in her search, the Scarecrow, the Tinman, the Cowardly Lion, and, of course, the leader of her search, Dorothy herself. When Glinda told her the secret of returning "home," it seemed all too easy and simple. Remember, Dorothy was told that she herself contained the secret to getting home. It was not in Oz, the dazzling external world. It was not through a wizard (no matter how wonderful a Wizard he was), although the Wizard may have symbolized both the positive animus and the self-archetypes. Dorothy herself was the answer. Jung viewed this process as an assimilation of the unconscious into the conscious, where a new center of balance is obtained. There is a new location of the self, and Jung thought it provided a "more solid foundation" for the psyche. Jung called this path to oneness *individuation*, although he did not see it as an easy journey. Much like Dorothy, we must face wicked witches on the path. Jung even characterized the process of

individuation and therapy as one where the patient was forged between the hammer and the anvil.

Jung thought the process of individuation was also expressed as an arrangement or pattern in our dreams. If we made the conscious attempt to recognize the symbols in our dreams, we might become aware of our own grand pattern. However, this process, remember, might take years of studying our dreams. Images might appear, disappear, and reappear over a period of years. Many symbols may remain beyond us. However, if we actively and honestly search, Jung did believe that a slow, and perhaps even imperceptible, growth might occur, and this is the process of individuation. Yet, the product of this slow growth is a more stable personality, a more mature personality, and a new center of the self is established, one that is not so easily unnerved. A new, less anxious, less bored self emerges: a more reliant and more contented self, one that wants fewer material goods, and one that is much happier with less.

Von Franz, 1964 thought that Jung's self-archetype might be symbolized in a dream by a "priestess, sorceress, earth mother, or goddess of nature or love" or "wise old man." She suggested that a cosmic man or Great Man, like Buddha or Jesus, might also symbolize the self-archetype. However, the self might also not take these shapes. She even noted that sacred stones may symbolize the self, because they have been revered for millennia in many cultures. She said that people even in modern society may pick up stones for no particular reason. People may be simply attracted by an unusual color or shape, and, for some, the stones hold a secret fascination. She gave the example of ancient Germans who thought that the spirits of the dead continued to live in their tombstones. Even the present custom of having tombstones may have arisen from this older belief. We also make monuments to great people out of stone. What do the black granite shapes of the Vietnam War memorial in Washington, D.C. symbolize? It is a good example of the sheer power and mystery of stone. The holiest of pilgrimage sites for a Muslim is Mecca, where the house of Abraham and Sarah stands. In that house is a holy rock, one said to be sent by God for them to build their house.

Von Franz, 1964 hypothesized that a stone may also symbolize the self-archetype for the following reasons:

> *For while the human being is as different as possible from a stone, yet man's innermost center is in a strange and special way akin to it (perhaps because the stone symbolizes mere existence at the farthest remove from the emotions,*

> *feelings, fantasies, and discursive thinking of ego-consciousness). In this sense the stone symbolizes what is perhaps the simplest and deepest experience — the experience of something eternal that man can have in those moments when he feels immortal and unalterable … or certain stones left by simple people on the tombs of local saints or heroes, show the original nature of the human urge to express an otherwise inexpressible experience by the stone symbol. It is no wonder that many religious cults use a stone to signify God or to mark a place of worship.*
>
> **Von Franz, 1964**

When I taught in India for 4 months on a Fulbright Fellowship in 1987, I went hiking one weekend over a short but wide stone hill. On the other side, I encountered a maze lined by pebbles and small stones in the form of a circle. In the center of the circle stood a pile of stones about 3 or 4 feet high. Quite naturally, I picked a stone from outside the circle, wound my way through the maze to the center pile, dropped off my rock, and proceeded back out of the maze. What it all symbolized, I have no idea nor did anyone I talked to when I returned to the sophisticated city of Bangalore (now Bengaluru). However, as Jung noted, that is the wonder and mystery of symbols. There is always some enigma associated with a symbol that may never be solved, and therein resides our eternal fascination for stones, circles, and mystery itself. Symbols, according to Jung, are representations of the unknowable.

The self-archetype, like all other archetypes, possesses a good—bad duality. The dark side of the self is potentially the most dangerous because the self-archetype is the most important in the psyche. Von Franz, 1964 describes the dark side of the self out of control or in a state of imbalance:

> *It can cause people to 'spin' megalomanic or other delusional fantasies that catch them up and 'possess' them. A person in this state thinks with mounting excitement that he has grasped and solved the great cosmic riddles; he [sic] therefore loses all touch with human reality. A reliable symptom of this condition is the loss of one's sense of humor and of human contacts.*
>
> **Von Franz, 1964**

It is interesting to note cases of the dark side that have gotten out of control in contemporary society. A paranoid religious cult leader, James Jones, in 1978, led over 900 people to their deaths in a mass suicide-murder in South America. A Japanese cult leader, Shoko Asahara, also respected by his followers as being a divinely inspired savior, in 1995, had his followers murder 12 innocent train travelers with poison gas in Japan. David Koresh, an American religious cult leader, ended up dying along with over 70 of his followers and their children, in a 1993 raid of their "religious" compound. It appears that all three "religious" leaders had this megalomanic (i.e.,

narcissistic personality disorder) spin to their personalities. All three were directly associated with the deaths of innocent people, and all three had an undeniably magnetic ability to attract followers to their delusional fantasies. Although Von Franz thought a reliable symptom of the dark self gaining control of a person's personality was a loss of human contact, it appears, sadly, that the opposite may be true in some cases.

The internal boredom that cult followers may feel initially, and perhaps the positive side of the self-archetype in them, serves as the motivation for their search for an external leader to provide them with meaning in their lives. They fail to see that their quest, although noble and worthy, is an internal one. A guru can guide, but the problem for the guru and followers is that the guru may become deified in the process. What fails to be recognized is that the roads the guru took for self-enlightenment can rarely be the same roads that anyone else can follow. This has disastrous consequences, as my previous three cult leader examples have shown. Von Franz, 1964 wrote about how "the evil spirit of imitation … makes one miss the target and … [one can] petrify psychologically." She further wrote:

> *As I pointed out earlier, the process of individuation excludes any parrot-like imitation of others. Time and again in all countries people have tried to copy in 'outer' or ritualistic behavior the original religious experience of their great religious teachers — Christ or Buddha or some other master — and have therefore become 'petrified.' To follow in the steps of a great spiritual leader does not mean that one should copy and act out the pattern of the individuation process made by his life. It means that we should try with a sincerity and devotion equal to his to live our own lives.*
>
> **Von Franz, 1964**

Jung believed that modern people were too often bored, exhausted, and disenchanted, but the answer to their dilemma was the adventure within themselves. Getting in contact with their inner world through their dreams might be the answer to the ultimate meaning of life. Von Franz, 1964 stated:

> *One gives one's mind, as before, to outer duties, but at the same time one remains alert for hints and signs, both in dreams and in external events, that the Self uses to symbolize its intentions — the direction in which the life-stream is moving.*
>
> *Old Chinese texts … often use the simile of the cat watching the mouse hole. One text says that one should allow no other thoughts to intrude, but one's attention should not be too sharp — nor should it be too dull. There is exactly the right level of perception.*
>
> **Von Franz, 1964**

## Other archetypal themes

Jung was also fascinated by archetypal numbers. I previously mentioned the archetypal duality, symbolized by day and night, yin and yang, black and white, heaven and hell, devil and angel, good and bad, right and wrong, on and off, Adam and Eve, Ara and Irik (who are creator spirits of the Iban people of Borneo), Apsu and Tiamat (creator deities of ancient Babylonia), Rangi and Papa (creators for the Maori), the Chinese creator Pan Gu who lived inside an egg for 18,000 years and then split into two parts creating the heavens and the earth, Mboom and Ngaan (two African creator deities), and easily thousands of other dichotomies. Robert Benchley (1921) wrote that there are only two classes of people, those who categorize people and those who do not. At my college graduation in 1969, I remember only that the commencement speaker said people are tyrannized by categories. Yet, categorization itself masks a hidden archetype symbolized by numbers and the varying members in each class that each number represents.

Although Jung spoke of dualities and trinities, it appears that he was powerfully drawn to the concept of quaternity or fourness. He even called quaternity a "strange idea" but noted how strong a role it played in religions and philosophies. He himself postulated four psychological functions and four stages of animus and anima development. He claimed that the self-archetype was frequently symbolized by four-sidedness. He wrote of the four seasons, four directions (north, south, east, west), and the four evangelists in the Bible. He also noted that fourness was probably more ancient than the concept of trinity. In fact, he said that, in Christianity, the concept of trinity (Father, the creator, Son, the redeemer, and Holy Ghost, the enlightener) superseded quaternity. However, the Christian concept of trinity is the religious symbolization of even a much older religious trinity from the Hindu religion, which speaks of Brahma (the creator), Vishnu (the preserver), and Shiva (the destroyer). The Hindu trinity predates the Christian trinity by at least 1000 years (the concept of trinity is not mentioned in the Old Testament). In Aztec mythology, the primordial being, Ometecuhtli, gave birth to four creator gods. It has also been shown that neurons in the brain are predisposed to the recognition of the components of "threeness" (or "fourness"), a process known as *subitization* that is independent of language (see Coolidge & Overmann, 2012).

It is even psychologically revealing to note how strong the archetype of quaternity thrust itself into Jung's own writing. For example, he thought that the Christian trinity was unconsciously being transformed into a quaternity by a fourth force. What did he (and he alone) postulate that this fourth force might be? A dark and evil anima!

Pentamerous is the adjective describing five parts. Interestingly, a pentagram, a five-pointed figure, has long been used as a symbol in the occult world. The negative associations with the number five are plentiful. In America, we have the Pentagon, a five-sided building in Washington, D.C. housing the armed services administration (although this is not inherently negative, it is ironic that the Pentagon does not house the Department of Education or the Department of Happiness). There were five rivers in the Greek mythological underworld. There were also five ages according to Greek mythology, and according to Aztec mythology there were five world epochs called the five suns. The number seven has perhaps been symbolized to an even greater extent than the numbers five or six. There was a famous memory paper in psychology that bore the title "The Magical Number Seven, plus or minus two …," because it had been observed that seven entities (plus or minus 2 for most people) appeared to be the limit of what people could keep in short-term memory (Miller, 1956). Thus, local phone numbers (in the USA) are usually 7 digits. There are 7 days in a week. According to Greek mythology, 7 warriors took part in the war between the 2 sons of Oedipus, and each led an army that attacked one of the city of Thebes' 7 gates. Much later, the movie *The Magnificent Seven* had 7 gunfighters. Seven holy sages are frequently mentioned in Hindu mythology, and, according to Australian aboriginal myth, 7 sisters wandered about Australia to escape a lecher. When they reached the sea, they leaped up into the sky to become the constellation the Pleiades. Interestingly, in Greek mythology, the 7 daughters of Oceanid (a sea nymph) were being chased by Orion when Zeus turned them into stars to save them — and they formed the Pleiades.

## Jung's explanation for flying saucers and aliens

In Chapter 4, I gave my explanation for belief in UFO abductions and paralysis. Jung (1969) believed that the empirical fact of the existence of aliens and flying saucers from outer space was not as important as the

psychic fact that people strongly believed in them. This psychic fact reinforced Jung's view of archetypes and a universal collective unconscious. Thus, it may be said that Jung's attitude toward UFO reports might be similar to his view on dreams: they were credible because they might reveal the workings of and meanings in an individual's psyche, and these reports were consistent with his conception of a shared, universal psyche. Jung also thought that the consistent reports of the shape of flying saucers, round or mandala-like, might be psychic manifestations of the self-archetype.

## Summary

1. Jung's most accessible and last book, *Man and his Symbols*, presents his views and those of his most trusted colleagues about the nature of the psyche, personal unconscious, and universal collective unconscious.
2. Jung thought dreams could open the way to the founding of a general comparative psychology from which an understanding of the development and structure of the human psyche could be gained.
3. Jung strongly rejected the notion of a glossary of universal meanings for dream images and themes.
4. Jung thought dreams transmitted unconscious impulses and reactions to consciousness.
5. Jung believed that dreams served a compensatory function; that is, dream messages were attempts to compensate for "a particular defect in the dreamer's attitude to life."
6. Jung felt that archetypes manifested themselves in dreams and that these themes and images gave humans a glimpse of their much older, ancient mind.
7. Jung believed that UFOs and flying saucers, regardless of whether they really existed, were psychic representations of the self-archetype, and thus might be unconscious attempts to seek greater meanings in life.

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# CHAPTER 6

# An introduction to Fritz Perls' dream interpretation techniques

> *In attempting to interpret a dream … regard all persons in it and all the features of it as projections … of your own personality … you are the maker of the dream, and whatever you put in it must be what is in you and therefore available for constructing the dream.*
>
> **F. Perls et al. (1951, p. 221)**

Fritz Perls (1893–1970) was one of the founders of Gestalt Therapy, which is a holistic, dream-focused, and person-centered therapy that emphasizes awareness of the present, i.e., "here and now," and there is very little examination of the past or blaming one's behavior upon past events. The word *Gestalt* means form or pattern, but it also has the connotation that a whole is more than the sum of its parts. For Perls, this meant that humans have a tendency to perceive "wholeness," and like humanist and client-centered therapist Carl Rogers, Perls relied in therapy on this natural tendency to desire completeness and a sense of oneness in one's life (Fig. 6.1).

Perls (1969a), in the first 71 pages of his classic book, *Gestalt Therapy Verbatim*, outlined the theoretical bases for his dream interpretation therapy, and in the rest of the book, he provided examples of these dream techniques in group settings. Whereas Freud believed that dreams were the royal road to the unconscious, Perls thought that dreams served as "the royal road to integration." Perls understood that we project ourselves into each and every dream thought. He emphasized, for example, that when we dream of our mothers, as vivid and lifelike as that dream image may be, is not really our mother. It is not really her words or script. This tendency to project, however, is so strong that we often fail to realize we have done so. Freud postulated that projection was an unconscious ego defense, where we take unwanted or undesired self-traits and attribute them to others. Because the process takes place so quickly and automatically, we remain unaware that projection has even taken place. I will give some examples of this

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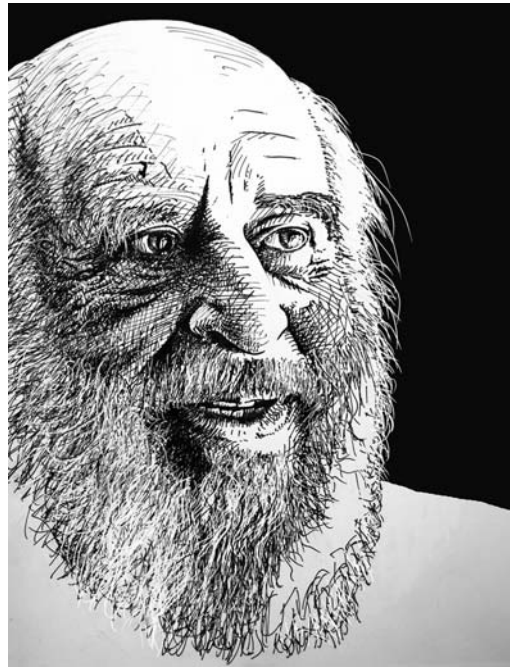


**Fig. 6.1** Fritz Perl (Wikipedia).

automatic projection. The first is a demonstration that has never failed in my general psychology class for over 3 decades. Look at the following two figures:

Now, decide which one is happy and which one is out on parole for murder. Without any additional instructions and without any hesitation, 95% or more of every class decides that the circle is happy and the triangle is murderous. Then I stare at them in disbelief, while they typically giggle at their own folly. People, I say to them, these are drawings of black ink on a whiteboard (or chalk on a blackboard). They are not alive! They have no feelings, neither happy ones nor murderous ones. I then point out that if they can project personality traits so easily upon simple geometric figures, imagine how more complicated our projections could be upon vivid dream images and that importantly includes both animate and inanimate images (for a detailed cognitive explanation for this phenomenon, see Margiotoudi & Pulvermüller, 2020). This projection process is the one upon which Perls strongly relies in Gestalt Therapy.

Another common example of projection occurs when we anthropomorphize (attaching human attributes to nonhuman things or animals). There was an eloquent story in a nonscientific magazine of a person who observed a funeral procession … among ants. The author courageously told the story of how the dead little worker ant was held aloft by its comrades in a solemn procession, carried sadly out of the main hole, and down the sides of the hill. Although scientists are not absolutely certain, it does not appear that ants are capable of anywhere near the same emotional sadness that humans feel. Furthermore, studies have shown that ants simply find the smell of a dead ant aversive (apparently the smell arises from decaying acids). In fact, if you take the decaying chemical and spray it on a live ant, that live ant will also be held aloft by its comrades and carried out of the anthill. People frequently anthropomorphize their pets, but it can be done as well with plants, cars, houses, or sports equipment. Again, if we can anthropomorphize animals, plants, or material possessions, imagine how easy it is for humans to attribute their own personality traits onto the vivid images in their dreams.

The modern discipline of behavior genetics has also shown that the largest factor contributing to the total sum of an individual's behavior comes from genetically based temperaments or ways of behaving (e.g., Turkheimer, 2000). These temperaments are also mostly consistent across various situations and across one's lifespan (e.g., Heatherton & Weinberger, 1994). I believe that both factors (projection and genetic predilections) may operate during dreaming. We probably project many of our deepest prejudices, biases, and offensive proclivities into our dream's cast of characters, script, and surroundings. Our dream themes will also be profoundly shaped by our ingrained, genetic predispositions to act and see ourselves act in very particular ways. Also, notice how these ingrained, genetic predispositions are consonant with Jung's notions of archetypes impelling behavior yet without a clear form.

## Gestalt therapy and dream interpretation

Perls believed dreaming was the most spontaneous thing that people do. He thought that language, specifically the things that we typically say, was mostly types of "shit" (sic), which reflects his controversial and provocative ways of explaining things. Chicken shit consisted of trite phrases like "Hello," and "How are you?" Perls thought that these phrases were so rehearsed and automatic that they lacked any true meaning or true

intention. For example, when we say, "How are you?" do we really want to know how a person is or is it a trite and actually meaningless way of transitioning a conversation beyond "Hello," but also a way of ending a conversation.

Perls proposed bullshit as occurring mostly in response to asking a person, "Why?" Because Perls, like Freud, believed that psychic events were overdetermined, that is, they have many causes, and there was no possible way that someone could come up with the *real* answer to why they had done something. Finally, in his own self-deprecating and spontaneous humor, he added elephant shit, for which he gave Gestalt Therapy as an example, because he reserved the term for grand theories.

Perls believed, much like Zen monks, in the sacredness of the here and now. He thought that psychopathological symptoms like anxiety, which is considered a chief symptom of a neurosis, arose from a person stretching themselves either into the past or the future. By focusing on thoughts and feelings in the here and now, a person might be freed of regrets (of past problems) and freed of creating anxieties from future fears and mostly imaginary problems. Perls (1969a) thought that anxiety prevented personal growth. He said in a lecture at his California institute, Esalen:

> *The stopping block seems to be anxiety. Always anxiety. Of course you are anxious if you have to learn a new way of behavior, and the psychiatrists usually are afraid of anxiety, they don't know what anxiety is.*
>
> **Perls (1969a, pp. 2–3)**

For Perls, anxiety was a symptom of the gap between the "now" and "then." Perls thought that if a person stayed "in the now", they could not be anxious, because he thought that there was an immediate excitement that flowed from the awareness of an ongoing spontaneous activity. By being in the now, Perls thought that one could be creative and inventive. If one's senses were ready, with one's eyes and ears open, which he likened to small children, one would be more likely to find a solution.

Perls, much like Jung, also found that boredom was telling. For Perls, boredom resulted from blocking off genuine interests. Perls, in his autobiography *In and Out the Garbage* Pail (1969b), claimed that boredom even shaped his own behavior as a therapist. It was boredom in therapeutic situations that motivated him to be obnoxious to people or be a caster of gloom. In other situations, he said it motivated him to flirt, be sexy, or to write his autobiography. In defense of Perls, he was nonetheless greatly loved despite his often gruff image and his putting of his patients in a "hot

seat" in front of hundreds of people. He actually believed in creative frustration, that is, placing people in situations that not only forced them into the 'here' and 'now' but also forced them to be real and not emit automatic trite phrases like, "Hello. How are you?"

Perls firmly believed that dream interpretation helped people become aware of their projections and unconscious personality issues, and by becoming aware of them, people will naturally move toward solving issues and problems. Most types of psychotherapies operate on the principle that awareness is curative. Thus, Perls strongly believed that as one learned about these dream principles, and a therapist made their patients aware of their unconscious issues through his dream interpretation techniques, the therapist could relax and have faith in the knowledge that awareness per se is curative.

## Topdog and underdog

Perls postulated another block to being able to live fully and freely was a war within the psyche between two parts which he called topdog and underdog. Perls imagined topdog as righteous and authoritarian (much akin to Freud's superego). Perls said topdog is "sometimes right, but always righteous." Topdog bullies our awareness with automatic prescriptions for living such as "you should … " and "you should not …." Topdog also threatens our consciousness with demands and threats of catastrophe, such as "you won't go to heaven if you don't do this," etc. But Perls thought we have evolved a worthy adversary, underdog (akin to Freud's ego), who in some ways is even more dastardly clever. Perls postulated that underdog manipulated (or dominated) our awareness with being defensive, apologetic, and whiny. Underdog often defeats topdog by saying such things as "I'm sorry," and "I tried but it's not my fault that I failed." Also, underdog very cunningly places blame elsewhere and has us join organizations such as "adult children of formerly abusive parents." Perls firmly believed that even if you were hit with a potty chair in Cincinnati in 1957 by an alcoholic father, it is very well time to get over it. He believed that people should take responsibility for their actions right now. Perls felt that blaming others was unhealthy and blocked us from being psychologically free.

Perls also thought that this self-torture game could even be carried to others. He noted that we usually automatically accept that topdog is always right and that we should be better humans, better children, better parents, etc. Yet, there is never any release from these demands for perfection from

the topdog. Even if we have achieved some goal (e.g., perfect grades for a semester, getting a raise, etc.), topdog will immediately torture underdog with such lines as, "Yes, but you'll never do that next semester," or "But you'll never get a raise that good again." This psychological process in topdog is similar to a little known aspect of Freud's superego, the ego ideal, whereby the superego bullied the ego even in times associated with relative successes (like getting a perfect semester grade point average, etc.). Furthermore, Perls thought that topdog would often extend itself to others, and so we might often berate others for failing to live up to our unreasonable expectations of them, like unreasonable expectations of our parents, our children, our friends, teachers, etc.

For Perls, these unrealistic expectations of ourselves and others are a damaging fantasy. Yet, he said, we take the fantasy for reality: it is an impasse. Perls believed that the impasse could be broken through a satori (insight). And this satori might come through some awareness of how we are stuck. Undoubtedly, Perls also believed that these insights could come through the most spontaneous expression of human existence — dreams.

## The Gestalt prayer

Although it has been taken out of context and even ridiculed, Perls reiterated his Gestalt prayer. It was not meant to be a moral code for evaluating all human behavior. Its primary purpose was to free people of the continual disappointment we feel in ourselves and others when we, and others, fail to live up to the unrealistic expectations of topdog. The Gestalt prayer is as follows:

> *I do my thing and you do your thing. I am not in this world to live up to your expectations And you are not in this world to live up to mine. You are you and I am I. And if by chance we find each other, it's beautiful. If not, it can't be helped.*
>
> **Perls (1969a, p. 4)**

Perls thought that when people were freed of this self-torture game, they would experience a greater sense of awareness. Perls always emphasized "how" rather than "why." He thought answers to why would simply perpetuate anxieties created by the gap between now and then (either past or future). It would also perpetuate our continued failure to take responsibility for our own actions. For example, an overweight adult might blame their alcoholic father for driving them to equate food with love. Perls fought strongly to abandon that blaming game and the search for a "why." Perls thought it much better to live in the present. Of course, living in the

here and now is continuum. We cannot always ignore where we have been or where we are going. However, Perls was undoubtedly (mostly) right: People can spend too much time worrying about the past and future and ruining a perfectly good present.

## Here and now

The contemporary Vietnamese Buddhist monk, Thich Nhat Hanh (1991), stated this practice of the "here and now" eloquently and yet mundanely. He entitled it, *Washing Dishes*:

> *To my mind, the idea that doing dishes is unpleasant can occur only when you aren't doing them. Once you are standing in front of the sink with your sleeves rolled up and your hands in the warm water, it is really quite pleasant. I enjoy taking my time with each dish, being fully aware of the dish, the water, and each movement of my hands. I know that if I hurry in order to eat dessert sooner, the time of washing dishes will be unpleasant and not worth living. That would be a pity, for each minute, each second of life is a miracle. The dishes themselves and the fact that I am here washing them are miracles! If I am incapable of washing dishes joyfully, if I want to finish them quickly so I can go and have dessert, I will be equally incapable of enjoying my dessert. With the fork in my hand, I will be thinking about what to do next, and the texture and the flavor of the dessert, together with the pleasure of eating it, will be lost. I will always be dragged into the future, never able to live in the present moment.*
>
> *Each thought, each action in the sunlight of awareness becomes sacred. In this light, no boundary exists between the sacred and the profane. I must confess it takes me a bit longer to do the dishes, but I live fully in every moment, and I am happy. Washing the dishes is at the same time a means and an end — that is, not only do we do the dishes in order to have clean dishes, we also do the dishes just to do the dishes, to live fully in each moment while washing them.*
>
> **Hanh (1991, pp. 26–27)**

Gestalt therapy ingeniously linked this spontaneity of dreams to the spontaneity of the here and now in therapy. Further, Perls firmly believed that awareness was curative, so he used dreams to help in this awareness. However, because Gestalt therapy is considered as an existential therapy, the purpose of Perls' dream techniques was not simply to find a "problem." Perls believed that people were systems (a gestalt) that naturally sought balance and closure. Perls (1969a) felt that imbalances were perceived as a need for correction, and wrote:

> *Now, practically, we have hundreds of unfinished situations in us. How come we are not completely confused and want to go out in all directions? And that's another law which I have discovered, that from the survival point of view, the*

> *most urgent situation becomes the controller, the director, and takes over. The most urgent situation emerges, and in any case of emergency, you realize that this has to take precedent over any other activity.*
>
> *And I believe that this is the great thing to understand: that awareness per se — by and of itself — can be curative. Because with full awareness you become aware of this organismic self-regulation, you can let the organism take over without interfering, without interrupting; we can rely on the wisdom of the organism.*
>
> **Perls (1969a, pp. 15–16)**

Again, this notion of an inherent wisdom of the organism is consistent with the thinking of Carl Rogers. Rogers postulated a mental health motive, arising from the unconscious, that would impel people ultimately to correct themselves. Thus, in Rogers' client-centered therapy, the therapist had no need to advise, suggest, or cajole a client into what the therapist believed was the correct decision. The natural and inherent wisdom of the organism would self-regulate and self-heal.

How exactly does this healing process occur? The word "gestalt" in Gestalt therapy means "form or pattern." Perls saw a law that he felt was constant in the universe, that is, the tendency for the world and every organism to maintain itself, and "the only law which is constant is the forming of gestalts — wholes, completeness." A gestalt was an "organic function" to Perls. A gestalt was the "ultimate experiential unit." A patient in therapy or people in one of Perls' workshops would, through their dreams, project the "holes" of their personalities onto the therapist. These holes consisted of hierarchies of unfinished issues, which they would project onto to their therapist. It would be the therapist's job to skillfully frustrate the patient to the point of confusion. The skillful part came where the therapist did not frustrate the patient to the point of depression nor let the patient get off too easily. Perls (1969a) wrote:

> *If you become aware each time that you are entering a state of confusion, this is the therapeutic thing. And again, nature takes over. If you understand this, and stay with confusion, confusion will sort itself out by itself. If you try to sort it out, compute how to do it, if you ask me for a prescription how to do it, you only add more confusion to your productions.*
>
> **Perls (1969a, p. 24)**

Now, let us return to our original premise that everything in a dream is the dreamer and show how it is reflected in Gestalt therapy. Perls (1969a) noted:

> *Now if my contention is correct, which I believe of course it is, all the different parts of the dream are fragments of our personalities. Since our aim is to make*

> *every one of us a wholesome person, which means a unified person, without conflicts, what we have to do is put the different fragments of the dream together. We have to re-own these projected, fragmented parts of our personality, and re-own the hidden potential that appears in the dream.*
>
> **Perls (1969a, p.67)**

I will explain specific dream techniques with elaborate examples in Chapter 10. Presently, I feel it is necessary to explain the philosophy behind the techniques as a kind of prerequisite. The process of dream interpretation always reminds me of Jung's (1970) prescriptions for interpreting dreams:

> *I have no theory about dreams, I do not know how dreams arise. And I am not at all sure that my way of handling dreams even deserves the name of a 'method.' I share all your prejudices against dream-interpretation as the quintessence of uncertainty and arbitrariness. On the other hand, I know that if we meditate on a dream sufficiently long and thoroughly, if we carry it around with us and turn it over and over, something almost always comes of it.*
>
> **Jung (1970. p. 74)**

I especially like the imagery of turning a dream over and over. In one of my all-time favorite books *In Watermelon Sugar* by Richard Brautigan (1968) (and not because it has a chapter entitled "Fred"), the nameless hero meets Fred (his buddy) at dinner and relates the following:

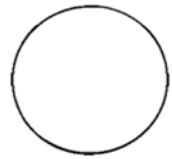
> *Fred had something strange-looking sticking out of the pocket of his overalls. I was curious about it. It looked like something I had never seen before. 'What's that in your pocket, Fred?' 'I found it today coming through the woods up from the Watermelon Works. I don't know what it is myself. I've never seen anything like it before. What do you think it is?'*
>
> *He took it out of his pocket and handed it to me. I didn't know how to hold it. I tried to hold it like you would hold a flower and a rock at the same time. 'How do you hold it?' I said. 'I don't know. I don't know anything about it.'*
>
> **Brautigan (1968, pp. 6–7)**

It makes me think the thing that Fred found might have been a metaphor for a dream. Contrast that dialogue with Jung's (1970) earlier writing:

> *One would do well to treat every dream as though it were a totally unknown object. Look at it from all sides, take it in your hand, carry it about with you, let your imagination play round with it, and talk about it with other people. So difficult is it to understand a dream that for a long time I have made it a rule, when someone tells me a dream and asks for my opinion, to say first of all to myself: 'I have no idea what this dream means.' After that I can begin to examine the dream.*
>
> **Jung (1970, p. 64)**

## Dreams form a hierarchy of unfinished business

As noted previously, Perls thought dreams were the most spontaneous expression of human existence, and now we are at the crux of perhaps the most important dream principle in this book (in my opinion). First, to appreciate experientially the theory behind Gestalt Therapy and this important principle, please examine the following figure:



What is this figure? If you said a circle, you are wrong. It is a very curved line. It was intentionally drawn to leave a very small space so that the circle was not completed. Perls argued that humans have a strong tendency to see things as whole objects or complete forms. Psychology students have long had to memorize the Zeigarnik effect (Seifert & Patalano, 1991), which states that unfinished tasks are remembered better than finished tasks. This effect appears to be particularly true for tasks which we take personally or when the tasks are ego involving. For example, we might worry about studying for an upcoming test. Whether we study for the test is another issue, but we tend to think about studying for it a lot. The worry introduces itself into our consciousness continually. However, tests we have just taken and done well on we tend to forget, or they do not occupy nearly as much time as the tests we are about to take. In light of this effect, let us recall another aspect of Perls' (1969a) argument:

> … *[A]ll the different parts of the dream are fragments of our personalities. Since our aim is to make every one of us a wholesome person, which means a unified person, without conflicts, what we have to do is put the different fragments of the dream together. We have to re-own these projected, fragmented parts of our personality, and re-own the hidden potential.*
>
> **Perls (1969a, p. 67)**

Perls thought that because of our naturally phobic attitudes and our generally diminished awareness of our own issues, much of who we really are has been dissociated, alienated, disowned, and/or thrown out. He felt that the repercussions of this dissociation meant that our full potential may not be realized. Perls believed that these issues formed a hierarchy or ranking. The unfinished psychological issues that are most important to us

would move toward the top of the hierarchy and uncompleted psychological issues that were not as important would remain in the hierarchy, but at lower levels. The issues at the top of the hierarchy would be expected to make their way into our dreams repeatedly, perhaps by their recurrence in dreams. Thus, when listening to and helping a dreamer interpret their dreams, it would be important to first listen and form hypotheses as to what these higher-ranking psychological issues might be and then to help the dreamer become aware and reown these fragmented parts of their personality. I will give numerous examples of how to accomplish these tasks in Chapter 10.

## Summary

1. Dream images are replete with projections of our own personalities, unconscious and conscious issues, and attitudes.
2. Fritz Perls, one of the founders of Gestalt Therapy, believed that dreaming was the most spontaneous of all human behaviors.
3. Perls thought anxiety was caused by a failure to stay in the "here and now."
4. Perls believed that all parts of a dream were projected fragments of our personalities.
5. Perls believed that our unfinished issues and problems formed a hierarchy which could be accessed through dream work. Awareness of these issues and problems is, in and of itself, curative.

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# CHAPTER 7

# Troubled sleep and dreams

*Is a dream a lie if it don't come true? Or is it something worse?*

***Bruce Springsteen,* The River**

"How did you sleep last night?" must be one of the most often repeated morning greetings throughout the world. Indeed, sleep disorders and problems such as insomnia and disturbing dreams and nightmares are probably ubiquitous to all human beings and probably have been for millions of years. Further, there is an undeniable link between sleeping well on a regular basis, and one's health and happiness (e.g., Dement & Vaughan, 1999). In fact, even how long we live is better predicted by adequate sleep on a regular basis than by any other single factor with the exception of genetics (e.g., Mazzotti et al., 2014).

## Insomnia

The term "insomnia" is a bit of a wastebasket category for many different types of sleep disturbances. It can describe difficulties with falling asleep, staying asleep, waking up during the night and failing to get back to sleep, waking up too early, or unrefreshing sleep. Of course, none of these problems are lethal but they certainly can be when, the following day, we are too sleepy and fatigued to stay awake in the course of our jobs or daily chores, like driving a car or truck, or operating heavy machinery, or when concentration and alertness are critical, such as for air traffic controllers, surgeons, or people who fix brakes on cars.

Whereas insomnia may seriously affect approximately 30%–40% of a given population, disturbing dreams or nightmares will generally affect about 100% of a given population (lifetime prevalence rate). And disturbing dreams and nightmares can be another cause for insomnia. Some people fear going to sleep because of their anxiety about having bad dreams. In this chapter, I shall review the prominent types of sleep disturbances, including insomnia, disturbing dreams, and nightmares. I will also review various treatment approaches to these problems. In Chapter 10, I will also give

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examples of how bad dreams and nightmares can be examined and used in dream interpretation psychotherapy.

When a person or patient reports insomnia or being an insomniac, it could refer to many different kinds of problems, as was noted earlier. It therefore follows that insomnia cannot be defined by a given amount of sleep. The first problem in such a definition is that while the average amount a human sleeps is about 8 h, some people feel fine and completely rested with only 5 h sleep and some need 9–10 h to feel good the next day. There is also a kind of stereotype that short-sleepers are more admirable and industrious while long-sleepers tend to be lazy. Empirical research has demonstrated that these biases are completely unfounded, as there are no demonstrated personality, physiological, or general health differences between natural short- and long-sleepers. Apparently, the basis for the variance in sleep length is strongly genetic as are the amounts of slow-wave (stages 3 and 4) and REM sleep (e.g., Toth & Verhulst, 2003). A genetic origin has even been found for a rare familial disease that make people suffer from perpetual jet lag (Xu et al., 2005). Thus, it may be summarized that some kinds of insomnia are genetically based, and it follows that some people who nearly always sleep well may also be genetically "blessed."

Besides the genetic bases for insomnia, there are obviously powerful environmental factors. One interesting one is taking a nap in the afternoon. Afternoon naps are more often filled with slow-wave sleep (Coolidge, 1974/2015). Hours later, when these people attempt to go to sleep at the regular bedtime, their need for the deep, heavy slow-wave sleep has been relieved. They often interpret this as being unable to sleep, and they may further disrupt their regular sleep pattern by getting up, eating or drinking caffeinated beverages, which simply compounds their initial sleep problem. As just noted, caffeinated beverages may also prevent restful sleep. Alcoholic beverages in larger amounts tend to depress slow-wave sleep and REM sleep and increase the number of sleep awakenings during the night, the latter of which interferes with the overall integrity of sleep. These forms of insomnia, where an external agent is the clear cause (e.g., caffeine, alcohol, etc.), are referred to as secondary insomnia because the problem is not directly related to another health problem or disease. The latter type of insomnia is called primary insomnia. Diseases like asthma, arthritis, and conditions where a person is in pain can cause primary insomnia. Mental states such as excessive anxiety, depression, and bipolar disorder are also frequently associated with primary insomnia.

Sleep experts also refer to acute and chronic insomnia. Acute insomnia generally passes quickly after a few days or weeks. People usually go back to their regular sleep patterns and suffer no long-term effects. Chronic insomnia is arbitrarily defined as affecting more than a couple nights a week for at least a month. In the worst cases, people suffer from insomnia for years or even decades. Officially, the *Diagnostic and Statistical Manual of Mental Disorders* (*DSM-5*; American Psychiatric Association, 2013) lists 10 different types of sleep disorders, including Insomnia Disorder, which is defined as either a difficulty falling asleep, staying asleep, or awakening early with an inability to fall back asleep. The "disorder" part of the rubric requires that it significantly affect one's personal, educational, or occupational life.

So, what is some general advice for dealing with acute and/or chronic insomnia? As noted earlier, the amount of sleep people need to feel rested varies. Over millions of years, humans have adapted their sleep—wake cycles to Earth's 24-h light-dark cycle. However, this adaptation is not perfect. Interestingly, in the absence of any time cues, humans' natural cycle seems to be slightly longer than 24 h (Dement & Vaughan, 1999). One implication of this finding is that there is the possibility that all humans may sleep well for months at a time and then have difficulty sleeping for a while. This may occur because the underlying more natural 25-h cycle becomes out of sync with the actual 24-h day—night cycle of the earth and sun. According to this theory, then, acute insomnia may wax and wane yearly on a rather regular basis. Thus, one treatment for acute insomnia may be just simple education. Nearly all people will suffer from acute insomnia at some time in their lives, and a majority may regularly, but only periodically, suffer from acute insomnia. Armed with this knowledge, we can simply accept the fact that insomnia is a regular and natural part of our lives. If we do not sleep well tonight, perhaps we will sleep well tomorrow night or the next.

Some people, however, overreact to even brief periods of insomnia. If education and transcendence fail to help, there are over-the-counter and prescription medications. Of course, there are side effects to this answer for insomnia, both physiological (e.g., feeling doped) and psychological (e.g., dependence), so it probably should be a last treatment of choice, although the temporary use of such medications can be fairly harmless for most people. Other pieces of advice for dealing with insomnia are:

- Try to go to sleep at night and wake up in the morning at about the same time each night and day. As noted earlier, humans have natural

sleep—wake cycles. The length of the cycles may vary somewhat from person to person; however, nearly everyone has a natural and consistent sleep—wake rhythm. Experiment to determine what your natural cycle might be. For example, I knew a psychologist and talk-show host who recognized she was chronically crabby. After examining many other possibilities, it was suggested to her that perhaps she was not getting enough sleep. "But I sleep a full 8 h!" she said, "just like my husband." After some experimentation, she was almost joyfully happy to discover that she needed 9 h of sleep, not 8 h like her husband.

- Naps are not harmful and are often helpful. However, remember that long naps (greater than 1 h) in the afternoon often rob us of the need for deep sleep when we finally go to bed at night. As a consequence, people who take a long nap in the afternoon often feel restless and suffer from a temporary insomnia when they attempt to go to sleep at night. In reality, they could just go to bed slightly later than usual, if they did take a long nap earlier. Naps can also be the only really effective antidote to sleepiness when we are driving long distances, as there are too many harmful side-effects from stimulants such as amphetamines. Coffee or caffeinated drinks will only work temporarily to ward off sleep. Recently, I have personally found that even a nap as short as 15 min restored me to nearly complete alertness while driving a long distance or working in my office, and its effects completely warded off my sleepiness for many additional hours.
- Coffee, tea, and other caffeinated drinks should be avoided hours before bedtime. Intense or heavy exercise hours just before bedtime often interferes with restful sleep. Interestingly, heavy exercise early in the day will often increase slow-wave sleep. This phenomenon may account for the folk myth that children who are observed to be highly active will sleep better at night. The myth actually has a basis in the relationship between exercise and slow-wave sleep, as long as the exercise is completed well before bedtime (as earlier noted). Smoking before bedtime (or anytime) is also harmful (for many other reasons) as nicotine serves as a stimulant and interferes with restful sleep.
- There is a physiological and evolutionary basis for sleeping in the dark. Thus, a dark place as opposed to a brightly lit place is much more advantageous for restful sleep. If you cannot control the amount of light in your sleeping place (e.g., on an airplane or as a passenger in a car), try a blindfold or sleeping mask. For some people, light-blocking makes a tremendous difference in the ability to go to sleep easily.

- There is no way to fully defeat jet lag. Diets that proclaim to defeat jet lag are completely fraudulent. Goggles and/or earphones that darken, lighten, or supply special sounds as one sleeps on a plane and purport to defeat jet lag are also completely bogus. It takes approximately 3 or 4 days, for most people, to adjust adequately to jet lag. It takes approximately 2 weeks for one's blood pressure and other physiological indices to return to normal when one flies to another country. The greatest jet lag occurs in trips to India (if one is from America), as they are almost 12 h the opposite, i.e., midnight in America is almost noon in India, and vice versa. There is no way to adapt to jet lag quickly and readily. Taking short naps while in a new country, supplemented by trying to adjust to the new country's typical sleeping and waking cycle as much as possible, is the only way to adjust to jet lag. I have found, for example, in my 17 trips from America to India, that I can start early before my trip, by sleeping later and staying up later, to aid in the transition. Also, when I arrive in India, I have found it much easier to succumb to naps (about 1—3 h) than to try to fight to stay awake as long as possible, but I use both methods.
- If you cannot fall asleep easily, try to stay in bed and read, watch TV, listen to music, or engage in some activity that is not too exciting or overly stimulating. Try not to get out of bed, do housework, or rearrange your closet. Rest and relaxation is the next best thing to sleep, even if it is not sleep and will not substitute for sleep. If you wake up during the night, again, try to stay in bed. I have monitored hundreds of hours of sleep EEGs. Brief sleep awakenings are absolutely normal and *brief*! If you stay in bed, relaxed, and trying to think of pleasant thoughts, you will go back to sleep. Further, the rest and relaxation that you get from *not* getting out of bed is still beneficial. There are behavioral psychologists who recommend getting out of bed when one awakens during the night, so that the bed is not paired with being awake. Thus, they do recommend getting up and engaging in light-duty waking activities. First, there is no solid empirical evidence that this strategy is superior to staying in bed and resting. Second, I must emphasize again that my many hours of monitoring sleeping adults firmly makes me believe that if one awakens during the night, one will go back into sleep quickly.

## Breathing-related sleep disorders

If you are interested in a more detailed classification of sleep disorders, the gold standard for their diagnosis is the *International Classification of Sleep Disorders* (ICSD-3; American Academy of Sleep Medicine, 2014). Currently, *DSM*-5 lists three kinds of breathing-related sleep disorders: Central Sleep Apnea, Obstructive Sleep Apnea Hypopnea, and Sleep-Related Hypoventilation. These three sleep disorders are related in the sense that they involve some dysregulation or cessation of breathing during sleep. Also, all of these sleep disorders can have dire consequences when waking performance demands full alertness, e.g., driving a car, most occupations, etc. Further, there is a mortality rate associated with any of these breathing-related disorders, which can range up to 15%.

The word *apnea* comes from Greek, and it means a complete lack of breathing. *Hypopnea* is defined as shallow or reduced breathing during sleep, but not a complete cessation of breathing. Central Sleep Apnea can be diagnosed if a person stops breathing or has shallow or reduced breathing very frequently during sleep (at least five or more times per hour), although it is actually rarely diagnosed. This disorder implies that the breathing problems are related to dysfunction in the central nervous system (CNS).

By far the most common type of sleep apnea is Obstructive Sleep Apnea Hypopnea, which usually occurs because something is blocking a person's the trachea (windpipe). These obstructions tend to be more common in men (at a ratio of about 2:1 to 4:1) compared to women, more common when there is comorbid obesity, and it seems to increase with age. The obstructions tend to be fatty tissue, relaxed throat muscles, tongue, tonsils, and other tissues. As noted earlier, daytime sleepiness can have dire consequences when waking performance demands full alertness, e.g., driving a car.

Sleep apnea is very common in babies (nearly all will have some apneic episodes before the age of one), and it is not thought to be harmful. However, in some infants these episodes can extend for very long periods, like 30 s or more. Such episodes can leave a baby blue (from lack of oxygen) and limp. The latter form of sleep apnea is, of course, dangerous, and babies prone to this form may even have to be resuscitated or they may die. The exact relationship of this form of sleep apnea to Sudden Infant Death Syndrome (SIDS) is currently unknown, although some researchers claim that there is some common underlying relationship between the two. It may be more theoretically simplistic (fewer separate assumptions, which is

the essence of Occam's razor) to assume that they are different forms of the same disorder. In its mildest and benign form, sleep apnea is common and nonpathological. In its mildest pathological form, sleep apnea episodes will last much longer than typical, and, of course, therefore, more dangerous. In its severest and most pathological form, SIDS, the infants will be found dead, and often there is no discernible heart problem or CNS disturbance. Empirical studies seem to link an increased risk of SIDS to preexisting brain dysfunction in regions related to breathing regulation (upper spinal cord and lower brain regions), relatives with sleep problems, maternal smoking and second-hand smoke, lower birth weight, sleeping on the baby's stomach or side, a baby who sleep in their parents bed, and sleeping on a soft mattress.

The following is some advice for those suffering from sleep apnea:

- One of the simplest and easiest ways to diminish sleep apnea is to try sleeping on your side instead of your back. People who sleep on their backs are more prone to sleep apnea.
- A continuous positive airway pressure (CPAP) machine is one of the most commonly prescribed devices for treating sleep apnea disorders. A CPAP machine provides a continuous flow of oxygen into one's nose and mouth during sleep.
- Some medications may also reduce the number of sleep apneic episodes. For example, antidepressants may help with some patients, and antispasmodic drugs may help as well. Stimulants taken during the day may also reduce daytime sleepiness, which is a side effect of sleeping poorly at night.
- Alcohol and sleep-aid medications appear to relax the throat muscles more than typical, thus resulting in more sleep apneic episodes. Try to reduce one's dependence on alcohol or medications for sleeping.
- If you are over your ideal weight, lose some weight. Thinner people have fewer sleep apneic episodes, probably due to less fatty tissue obstructions in their throats.
- Have your sleep apnea evaluated by a certified or licensed sleep clinic that specializes in the disorder. In some circumstances, minor surgery is warranted and can be effective.

## Narcolepsy

Narcolepsy involves sudden attacks of sleepiness while awake, and it comes from the Greek word *narco*-meaning numbness or stiffness and *-lepsy*

meaning to seize. When narcoleptic people are monitored for their EEG waves, it is most often found that the sleep attacks consist of REM sleep. Compared to insomnia or sleep apnea, narcolepsy is relatively rare (about 7 cases in 10,000), although its symptoms can be dramatic. Sudden attacks of narcolepsy, which may occur 2 to 6 times a day, are often accompanied by muscle cataplexy, which is either a complete loss of muscle tone where the person may suddenly fall to the ground, or a partial loss of muscle tone where only the eyelids or head, jaw or arms may be affected. A little less than half of people with narcolepsy report an aura, which is a brief prodromal state that heralds the full narcoleptic episode. This aura may include dreamlike hallucinations, which are also called hypnagogic hallucinations. As in normal REM episodes, narcoleptic people often report being paralyzed during their sudden REM onsets, which as previously noted in the book, is called muscle atony and normally accompanies nearly all REM sleep. My late doctoral committee member Wilse B. Webb (1975) had unofficially labeled narcolepsy a REM dysfunction disorder, which appears to be an apt description.

The cause of narcolepsy is strongly suspected to be genetic as it runs in families, and recent empirical work with dogs and humans suggests a complex inheritance pattern, and it may be related to a specific dysfunction on chromosome 6. This genetic dysfunction may inhibit the production of a chemical neurotransmitter, orexin (specifically, it is a neuropeptide, which is a larger molecule and slower-acting than a neurotransmitter), which regulates breathing and wake-sleep cycles (e.g., Hallberg et al., 2019).

Narcolepsy appears to occur equally for both genders. The waking narcoleptic attacks often interfere with the regular integrity and pattern of slow-wave and REM sleep. Thus, narcoleptic people very often feel sleepy during the day. In part, it is suspected, as a consequence of not getting REM sleep during their normal sleep period. Narcoleptic people often become anxious that they may suffer a bout while driving or during some other critical task. Thus, they may curtail many social activities and interactions with others for fear of having an attack.

There is no cure for narcolepsy but it does have some semi-successful symptomatic treatments. These treatment approaches are most often twofold: prescription medications, usually CNS stimulants, and nap-therapy, which involve scheduling short naps three or more times a day in order to ward off sleepiness and impending narcoleptic attacks.

Other general advice for narcoleptic people is as follows:

- Education of narcoleptic people and their families about the nature and causes of narcolepsy often helps to reduce fears about narcolepsy and the stigma that may be attached to it. Learning about narcolepsy also helps others to avoid attaching pejorative labels such as lazy, unmotivated, or late-night-party person when the narcoleptic behaviors are observed.
- Although narcolepsy is not presently curable, it is a manageable disorder that allows people with it to live almost completely normal lives.

## Nightmares

The word 'nightmare' comes from Old English and refers to a female demon that visits at night. The lifetime prevalence of nightmares cross-culturally is virtually 100%, as no one seems immune to at least one troubling dream at some point in their lives. Nightmares officially become a disorder if they repeatedly awaken the sleeper and the subsequent anxiety associated with the nightmares cause significant social or occupational trouble during wakefulness. The official *DSM-5* label for these disturbing dreams is *Nightmare Disorder*. The most intense and troubling nightmares appear to occur in REM sleep, although fleeting images and thoughts that cause anxiety can occur in other stages as well (e.g., stages 1 and 2 or N1 and N2). Because a majority of REM sleep occurs in the last third of a sleep period, nightmares tend to be reported toward the end of an 8-h sleep period, most often, then, in the early morning. The anxiety generated from intense nightmares can prevent sleepers from returning to sleep. If the nightmares repeat themselves, these sleepers can develop comorbid psychopathological states, such as anxiety, depression, irritability, and, of course, daytime sleepiness and loss of concentration and attention.

By about the age of 5 years old, approximately 50% of children will awaken their parents with the report of a nightmare. Most children appear to grow out of regular nightmares, and about 1%–10% of adults have regular but occasional nightmares. Women report more nightmares than men.

Nightmares posed a problem for Freud and his initial hypothesis that all dreams were wish fulfilling. In his 1920 book, *Beyond the Pleasure Principle*, Freud reluctantly recognized that neuroses, developing after traumatic experiences like war and early childhood sexual trauma, were often accompanied by nightmares. Freud wrote:

> *This [dreams from traumatic neuroses] would be the place, then, at which to admit for the first time an exception to proposition that dreams are fulfillments of wishes … But it is impossible to classify as wish-fulfillments the dreams we have been discussing which occur in traumatic neuroses during psychoanalyses which bring to memory the psychical traumas of childhood.*
>
> **Gay (1989, p. 609)**

For Freud, this phenomenon (nightmares) implied that there was something even more primitive and ancient than his proposed pleasure principle (i.e., seek pleasure, avoid pain) upon which the unconscious operated. Although he believed humans evolved to the point where the current function of dreams was to fulfill wishes, he hypothesized that their original function might have been different. He proposed that the original function might have been a place where exceptionally strong traumas broke through the last line of defenses against anxiety of the ego. And he postulated that, in repeated nightmares, there was an instinctual compulsion to repeat, and this repetition was also beyond the pleasure principle, though not entirely in conflict with it. To explain that seeming contradiction, Freud thought that the compulsion to repeat a nightmare might allow for the ego's eventual mastery of the traumatic memory.

For Jung, nightmares were largely compensatory, just like regular dreams. He gave the example of people who have too high opinions of themselves having the dreams of falling. Thus, nightmares might often point out deficiencies in one's personality and even herald dangers in one's future courses of action. A nightmare, according to Jung, created by our unconscious, might perceive and predict future dangerous events and pass this information on to the conscious. However, as noted in Chapter 5, Jung cautioned that while nightmares may warn us this way, nearly as often they do not. In his view, dreams and nightmares are just sometimes run by a benevolent agency. Yet, a "mysterious" hand may also guide dreams and nightmares, and thus they may even serve as traps. Jung, like Freud, also recognized that if it were traumatic events that triggered "reaction-dreams," i.e., nightmares, then the nightmares could "hardly be called compensatory."

Nightmares and recurring trauma dreams are also thought to be among the common symptoms of posttraumatic stress disorder (PTSD). PTSD involves a person being exposed to a highly traumatizing event, typically outside the realm of regular experience, such as war, rape, and natural disasters, and the subsequent development of a confluence of psychological disturbances such as distressing and recurring recall of the event, a numbing

of responsiveness to social and interpersonal interactions, and heightened arousal (e.g., hypervigilance). It has been noted (Barrett, 1996) that the dreams and nightmares of PTSD victims tend to be literal reenactments of the trauma, often with some unusual and horrible twist to the story that did not actually happen. Barrett has also suggested that as time passes and the symptoms of PTSD become less severe, that the reenactment dreams become more symbolized and begin to integrate regular waking events. However, it is now acknowledged that the contents of these disturbing dreams may not be literal representations of traumatic events.

General advice for people with nightmares:

- As noted previously, children generally begin to experience some distressing nightmares by the age of 3—6 years old. Parents may ameliorate their children's anxiety and fears as a result of these nightmares by gently reassuring their children that the dreams were only dreams and that the events did not and will not really happen. Sometimes, it may help to tell the children that dreams are like cartoons, they happen but they are not real, and they cannot and will not hurt the child.
- There is evidence that nightmares appear to be related to waking anxieties. In the case of children, parents may be able to thwart the occurrence of nightmares by allowing the children to communicate their fears or anxieties before the children go to sleep. Soliciting their fears and anxieties before children go to sleep may not be a good idea, but allowing a free exchange of the child's thoughts before sleep may be.
- The previous advice for children also holds for adults. Going to sleep with a major worry or concern may hasten troubling dreams. Talking to a loved one or trusted friend before sleep may be useful. For major concerns and troubles, psychotherapy may be a solution. In general, avoid dream interpreters but seek licensed clinical psychologists who may have a specialty in dream interpretation, like Freudian, Jungian, or Gestalt therapists. Also watch for licensed clinical psychologists who may be proponents of Clara Hill's (1996) model of dream interpretation.
- Education is nearly always a good policy. In other words, informing clients, patients, friends, and family who have nightmares that the dreams are transitory, have no ultimate meaning, and everyone has at least one or more in their lifetime, may go a long way in reassuring people and relieving their anxieties about occasional nightmares.

## Parasomnias: sleepwalking and sleep terrors

Parasomnias are defined as abnormal behavioral events associated with sleep, its specific stages, or the transitions between sleep and wakefulness. One type of parasomnia is the *non-rapid eye movement sleep arousal disorder*. *DSM-5* lists two conditions that qualify for this diagnosis: *sleepwalking* and *sleep terrors*. Sleep walking consists of getting up from bed while asleep and walking around one's bedroom, house, or sleep walking people may even go outside. They are generally unresponsive to anyone talking to them, and they are difficult to awaken. Walking during sleep is relatively common and most often benign. Somewhere between 15% and 40% of children have been reported to walk at least once in their sleep, and about 3% of all children are reported to sleep walk on a regular basis. Approximately 5%—10% of adults have benign sleep walking episodes, and the prevalence of sleep walking disorders in adults is thought to be approximately 3% or less. Again, in order for sleep walking to qualify as a disorder, it must bring significant impairment to the sleep walker's waking life. Latter examples might include fears of sleep over at a friend's house (in the case of children), sleeping with bed partners (as in adults), or other social or occupational disruptions.

Contrary to popular opinion, sleep walkers are not carrying out dreams. In sleep laboratories, sleep walkers arise in stages 3 and 4 sleep (N3 — slow-wave sleep), thus sleep walking usually occurs in the first third of a sleep period. My students usually appear amazed that people can rise up and walk during their sleep, as if it is a highly intelligent behavior. At some philosophical level it might be; however, sleep walkers' general level of responsivity to their environment is low, and complex human behaviors like elaborate language use or conversations, reasoning, and higher level decision-making are completely absent. The most complex human behaviors observed during sleep walking are confined to walking, opening a refrigerator door, and upon very, very rare occasions driving a car. There is also the folk myth that waking a person very suddenly or shockingly from a sleep walking episode could be deadly for the sleep walker, and it is a myth. However, Miss Manners might tell us that it is rude to wake up anyone suddenly or surprisingly, and of course people with heart conditions might be highly vulnerable to sudden or shocking waking techniques.

Other dangers from sleep walking include choking while eating during a sleep walking episode, going outside, walking into the street at night, and tripping or falling downstairs. It is thought that stress may increase the

likelihood of sleep walking. Also, a full bladder might instigate a sleep walking episode. Genetic contributions to sleep walking are also suspected.

Advice for dealing with people who sleep walk:

- Simple etiquette requires that sleep walkers be gently directed back to bed. They should not be rudely or shockingly awakened. Awakening them kindly and directing them back to bed is a good practice.
- Therapy may be indicated for chronic sleep walkers especially where stress is suspected as a precipitating factor.

The other condition that qualifies as a parasomnia are sleep terrors (formerly known as night terrors). Psychologically, sleep terrors are typically much more terrifying than nightmares. People who have sleep terrors wake up screaming, crying, or incoherently babbling. Sleep terrors can also be physiologically differentiated from nightmares because the former are thought to originate in slow-wave sleep (stages 3 and 4 or N3) as opposed to nightmares with an origin in REM sleep. Thus, both of these types of parasomnias, sleepwalking and sleep terrors, usually occur in the first third of a sleep period where slow-wave sleep is more prominent.

In terms of prevalence, sleep terrors are much less frequent than nightmares. About 3% of children will experience a sleep terror and less than 1% of adults will. However, due to the embarrassment, confusion, and amnesia that may accompany sleep terrors, the adult prevalence rate may be higher than estimated.

These terrifying vocalizations that accompany sleep terrors are often accompanied by motor movements such as flailing, punching, and attempts to get up and run away or flee, and people with sleep terrors can hurt themselves or others during their episodes. Clinicians sometimes interpret these actions as protective reactions to the terrors that the dreamer has just experienced. Interestingly, however, people with sleep terrors rarely report a single coherent dream story as they might after a nightmare. At best they report a fleeting or fragmented terrifying theme, but more often sleep terrors are not recalled at all. Many people with sleep terrors are amnesic for their whole sleep terror episode, particularly in the morning (or at the end of their sleep period).

As is standard in the *DSM*, in order for a condition to qualify as a disorder, people with sleep terrors must have their interpersonal, educational, or occupational functioning disrupted. This disruption often occurs because people with sleep terrors can become ashamed of their disorder and may curtail activities when sleeping over at someone else's house is

required, such as sharing rooms during conventions, vacations, trips, and even more intimate social interactions such as sleeping with another person.

Interestingly, my students and I found that sleep terrors may have a genetic basis! In a study of identical and fraternal twins (which is one of the primary methods for determining the heritability of behaviors), we found that sleep terrors were fairly prevalent in our sample at about 6%, and that their polygenic additive genetic basis was about 51%. We also found, consistent with the literature, that children with sleep terrors or repeated nightmares do have more psychological problems than children without them (Coolidge et al., 2010). It may be true for children and adults that daytime stresses and anxieties are a contributing factor to sleep terrors and repeating nightmares. It is also well established that traumatic events like death and environmental catastrophes may also be a contributing factor to these sleep terrors and nightmares.

Advice for children and adults with sleep terrors and nightmares:

- It has been conventional thinking that sleep terrors and nightmares in children and adults are not a sign of comorbid psychopathology, but there is empirical evidence that there is an elevated risk for psychopathology in these children and adults. Common types of psychological problems include PTSD, major depression, and generalized anxiety disorder. Accompanying personality trait disturbances might include avoidant, dependent, schizoid, borderline, or schizotypal personality disorders and/or their accompanying traits. Thus, psychotherapy may be a very helpful intervention.
- It has been reported anecdotally that alcohol and sleep sedatives may increase the frequency of sleep terrors. Other semicontrollable risk factors include sleep deprivation, fatigue, and intense stress. As noted earlier, genetics may also play a strong role in the development of sleep terrors, as a ten-fold increase of sleep terrors is said to occur among first degree relatives.
- Education, again, may play a crucial role in the reduction or prevention of sleep terrors. It may be important to reassure parents that the sleep terrors of children usually diminish over time. Identifying stressors and reducing them (to the extent they can be reduced) in the waking lives of children and adults with sleep terrors or repeating nightmares may be a critically important intervention. Again, psychotherapy is highly recommended for children and adults with these sleep issues.

## Rapid eye movement (REM) sleep behavior disorder

As opposed to the slow-wave sleep parasomnias, REM sleep behavior disorders occur exclusively during REM sleep, thus, mostly during the last third of a sleep period. These disorders consist of vocalizations, which are often loud, sometimes obscene, and emotionally charged. They also consist of motor movements like jumping out of bed, punching, kicking, or hitting, and thus, they may result in injuries to the sleeper or their companions. In one extreme case, a fellow killed his wife and claimed it was the result of a REM sleep disorder (note: he was found guilty). Upon awakening, these people often report that they were engaging in behaviors to defend themselves in their dreams, either from being attacked or trying to escape from being attacked. Further, when they awaken, they are usually fully alert and not sleepy or disoriented.

REM sleep disorders are relatively uncommon (less than 1 in 200 people will be diagnosed), although their presence may increase if there are comorbid psychiatric diagnoses, particularly neuropsychological disorders like dementia or other neurodegenerative diseases. It is also thought that the prevalence may increase in these disorders because of the use of psychotropic medications (i.e., antidepressants, antianxiety, and antipsychotic medications, and mood stabilizers [for bipolar disorders]). The treatment for REM sleep disorders is typically a drug like melatonin, which is a natural hormone known to regulate the human wake-sleep cycle. It is available as a supplement without a prescription. It appears to make one sleep better by increasing REM sleep and reducing any bout of insomnia. Another drug treatment is clonazepam, which works to enhance specific chemical neurotransmitters in the brain. It is most often prescribed for epileptic seizures and anxiety. It appears to work as well as melatonin, but it does have more negative side effects and requires a prescription (McCarter et al., 2013).

## Restless legs syndrome

The *restless legs syndrome* (RLS) has received increasing attention over the past 2 decades, and it appears as an official diagnostic label in *DSM-5*. In RLS, people report that when they go to bed or are asleep, they have an overwhelming compulsion to move their legs or their legs become disagreeably uncomfortable. People with RLS will often subjectively report that their legs have the feeling of something crawling on them or bugs or worms creeping under their skin, itching, burning, aching, or extreme leg

restlessness. They may also report that their legs are full of pain and discomfort. This discomfort prevents sleep or disrupts sleep, and often leaves these people feeling sleep deprived, anxious, upset, fatigued, irritable, and disagreeable. RLS appears to be relatively common as it has been reported that anywhere from 2% to 15% of an adult population may experience RLS. It may be that the chronic prevalence rate may be closer to the former estimate and the single or limited form of RLS may be closer to the latter estimate. Current thinking has it that RLS, primarily, is a central nervous system disorder that can be exacerbated by psychological stress and other personality factors. There is also a strong suspicion that RLS has a strong heritable component as there is a high incidence of RLS among first degree relatives. RLS may also increase in prevalence in some people with iron deficiencies, neurological lesions of the CNS, pregnancy, end-stage renal failure, and with the use of some psychotropic drugs such as antidepressants, antipsychotics, and mood stabilizers. Caffeine has been reported to exacerbate the symptoms of RLS. RLS may occur in children but it tends to be reported for the first time in young adults (less than 20 years old) far more often, although a majority of people with RLS report their first episode after 20. See Picchietti et al. (2017) for more information about RLS.

Advice for the treatment of people with RLS:

- If RLS reaches the level of a disorder, a medical referral to a primary care physician is probably best. There are medications that seem to improve the most severe cases of RLS, although they tend to be dopaminergics, that is, drugs that are primarily used to treat Parkinson's disease. However, there is no single drug that is universally prescribed on a regular basis. Some people with RLS seem to improve on opioids, but these drugs, like the dopaminergics, may have severe side-effects. Of course, the safest of drug treatments may be increasing iron intake to see if that alone helps.

## Dream interpretation with people who have troubled sleep and dreams

Like Gestalt therapist Fritz Perls, I believe that regular dreams, nightmares, sleep terrors, and even the experience of insomnia can be successfully used in dream interpretation as a psychotherapeutic technique. Often just the mere act of sharing these experiences and feelings in therapy can be reassuring, comforting, and hope-giving. I do, however, believe that the

interaction with a therapist, especially where the therapist uses some of the dream techniques from Freud, Jung, and Perls, can be highly beneficial. In Chapter 10, I give examples of interpreting recurring nightmares and an example of a woman who said she never remembers her dreams.

## Summary

1. Insomnia is a term for a variety of sleep disturbances including difficulties with falling asleep, staying asleep, waking up during the night and failing to get back to sleep, waking up too early, or unrefreshing sleep.
2. Sleep apnea is the stoppage of breathing during sleep, and it can occur for a variety of reasons including increasing age, obesity, and genetics. Sleep apnea is common in infants although its relationship to SIDS is presently unclear.
3. Narcolepsy involves sudden attacks of sleepiness while awake. It is much less common than insomnia or sleep apnea, and it is managed well by drugs and environmental interventions.
4. Nightmares are highly prevalent and, for most people and children, are thought to be dependent on waking anxieties.
5. Parasomnias, which are abnormal behavioral events associated with sleeping, include sleep terrors (much more disturbing than nightmares) and sleep walking. Both appear to originate during slow-wave sleep.
6. REM sleep behavior disorders occur exclusively during REM sleep. They include loud and emotionally charged vocalizations and often violent motor movement, which may consist of kicking, arm flailing, punching, and falling out of bed. Medications like melatonin and clonazepam appear helpful.
7. Restless legs syndrome occurs in about 2%–15% of adults and is experienced as an overwhelming compulsion to move one's legs or perceiving one's legs as disagreeably uncomfortable. There may be a heritable component to the syndrome. Drugs which enhance the chemical neurotransmitter dopamine and iron supplements appear to be helpful.

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# CHAPTER 8

# The prophetic nature of dreams

> *Since you left, I've been enjoying the sweetest sleep and most promising dreams I've ever had, my lords. I dreamed the souls of the people Richard murdered came to my tent and promised me victory. I tell you, I feel very jolly remembering such a beautiful dream. How late is it, lords?*
>
> ***-W. Shakespeare,* Richard III, *Act 5 Scene 3***

The above quote is a prophetic dream that Henry, The Earl of Richmond, has before he kills Kind Richard III of England in battle. Although fictional, it shows how literature, fictional and nonfictional, is replete with dreams that predict the future. As this chapter will reveal, these dreams can be premonitory, that is, predicting something bad will happen or premonitions of good things that will happen. However, the purpose of this discussion is to ponder how dreams may predict the future, and I will trace a range of possibilities from the mundane (coincidence and probabilistic) to the divine and beyond (synchronicity).

Near the beginning of April 1865, Abraham Lincoln had a dream that he heard crying in the White House. He dreamt that he got up and searched the rooms for the source of the crying. When he came to the East Room, he saw a coffin guarded by soldiers, and the corpse had its face covered. When he asked a guard who was dead, the soldier said, "The President. He was killed by an assassin." On April 15, 1865, Lincoln was assassinated by John Wilkes Booth in Ford's Theater in Washington, D.C. His body was later placed in a coffin in the East Room of the White House, and it was guarded by soldiers.

On June 28, 1914, Bishop Lanyi of Hungary, who had once been a teacher of the Archduke Ferdinand of Austria, woke up very early in the morning from a troubling dream. He saw his former pupil assassinated along with the Archduke's wife. He recorded the dream and said a mass for them. At 11:15 a.m. on the same day, in Sarajevo, Bosnia, the Archduke and his wife were assassinated by a Bosnian Serb, and their assassinations served as the impetus for World War I.

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As noted at the outset of this chapter, there is no question that stories such as these are legion throughout literature. Many turn out to be mere urban legends and become validated only through their retelling. I cannot verify either of these two stories, although I have checked on urban legend websites. Nonetheless, regardless of whether they are true or not, it is a fact that extant literature contains many reports of prophetic dreams and that people very commonly report them and believe in them.

The notion that dreams can be prophetic is probably prehistoric, and it certainly occurs as one of the most prominent and dominant of the very earliest interpretations of dreams. In the oldest written mythic epic, Gilgamesh takes his troubling dreams to his mother, Ninsun, and she interprets his dream as to mean that Gilgamesh was about to meet a new wild-man adversary Enkidu but that they would become friends and achieve greatness together. Not only is this the first record of a dream interpretation, but it provides evidence for the archetypal link between dreams and prophecy. Furthermore, from a Jungian perspective, we may represent Jung's classic concern with the individuation of the shadow archetype or his 2-million-year-old man (sic) in all of us. The latter figure represents the idea that we are the products of at least 2 million years of evolution and that in all of us there is ancient wisdom. In a Freudian sense, Gilgamesh may be a metaphor for the unification of a maniacal ego with the wild drives of the id. Their resulting truce may represent the intrapsychic moral of the story, a healthy and productive psyche.

## History of prophetic dreams

The ancient history of prophetic dreams also contains a strong link to war. Ashurbanipal, an Assyrian king who ruled from 668 to 627 BCE, left a great library of about 21,000 clay tablets. On the tablets is preserved the story of how the goddess, Ishtar, appeared to Ashurbanipal in a dream and predicted his victory in war the following day if he would honor her. Apparently, he did so, as he was successful the next day in battle. This dream was also particularly common among the Egyptian pharaohs. As mentioned in Chapter 3, Thutmose IV had a dream that the great sphinx at Giza had told him he would become ruler of Egypt. University of Chicago Egyptology professor James Breasted (1912) noted that in the 13th century BCE, the great pharaoh Ramses' son, Merneptah, had a dream in which the creator god, Ptah, appeared as a gigantic statue, handed Merneptah a sword, and reassured him of victory against a large Libyan army. Merneptah defeated

the Libyan army in a rout. In about 663 BCE, Tanutamon, an upper Egyptian ruler, invaded and conquered lower Egypt on the basis of a dream that told him he was about to become ruler of all of Egypt. Of course, these dream prophecies were usually aided by Egyptian armies of well over 20,000 men for a single battle.

Alexander the Great (356–323 BCE) had a dream that he would conquer the city of Tyre (now in Lebanon). Apparently assured by the dream, he went on to conquer the city and then carried a famous dream interpreter with him for the rest of his battles. It is important to note that, for various reasons, we probably read about successful prophetic war dreams more than unsuccessful ones. Professor Breasted, for example, in his book *A History of Egypt*, listed the prophetically successful war dreams for three pharaohs (Thutmose IV, Merneptah, and Tanutamon), but there were no reports of dreams that did not come true (Breasted, 1912). However, we do have a few stories of unsuccessful prophetic dreams. Xerxes (519–465 BCE), a Persian king, took over 300,000 men and over 800 boats in about 480 BCE and attempted to conquer Greece based on his dreams that he would be successful in such an endeavor. Because Greece was not very important in the world at that time, Xerxes' dreams seem particularly curious. After 13 years of mixed success and failure, Xerxes finally withdrew to Persia.

Hannibal (247–183 BCE), a Carthaginian, acted on a dream that told him he would conquer the Roman Empire. A young angel-like man appeared to Hannibal in his dream and showed him the Roman Empire in ruin. The young man told Hannibal to go and that his fate would be accomplished. With an army of 20,000 infantry, 6000 cavalry, and 38 remaining elephants (after crossing the Alps), he invaded Italy with some initial successes in 218 BCE. However, through tough winters, poor provisions, insufficient help from his homeland Carthage, and local loyalties to Rome, Hannibal finally abandoned his Roman campaign. Hounded by Roman armies, Hannibal committed suicide by poisoning himself in about 183 BCE (MacDonald, 2015).

The use of dreams to prophesy has been a cross-cultural phenomenon since recorded history. It is not difficult to gather thousands of examples, not only from the world's literature but also we could do as well gathering this type of dream from friends and family members. Thus, I think it is often a mistake to overlook the obvious. Further, I think it silly to question whether these prophetic dreams occur. They certainly do, and they are common, ancient, and universal. However, an important question we might ask is why do they occur.

I have previously mentioned incubation dreams of the early Mesopotamians and later the Egyptians. Van de Castle, in his book *Our Dreaming Mind*, notes the Greeks had refined dream incubation into "a highly developed art" (Van de Castle, 1994). He wrote:

> *The person seeking a healing dream went through rather elaborate preparatory procedures, which varied from temple to temple. Generally the person had to refrain from sexual intercourse, follow a special diet, and engage in frequent cold water bathing. Animal sacrifices were made and the dreamer would sleep upon the skin of the animal sacrificed, which was often a ram. Evening prayers or hymns were held during the 'hour of the sacred lamps,' at which time the supplicants would beseech Aesculapius (an earlier Greek healer) to provide them with their desired dream. Within the temples were statues of the god and testimonial plaques from previous visitors regarding their healings … After the torches were extinguished, priests would move about among the expectant devotees with words of encouragement.*
>
> **Van de Castle (1994, p. 62)**

Van de Castle noted that all of these procedures obviously created conditions that would contribute to successful dreams. Apparently, the priests began to play increasingly important roles as dream interpreters and offered suggestions for cures to medical illnesses in particular. Hippocrates (469–399 BCE) may have been the first of the Greeks to expound clearly on the types and functions of dreams. In a short essay, *On Dreams*, Hippocrates (1931) expressed a belief in prophetic dreams and in what might be considered a subtype of the prophetic dream, the prodromal dream (derived from the Greek word prodromos, which means "running before").

## Prodromal dreams present early symptoms of future diseases

Hippocrates speculated on the possibility that bodily problems could be diagnosed through dreams and offered probably the earliest observation that "all dreams are wish-fulfilling dreams" when he wrote: "All the objects we believe to see indicate a wish of the soul." This hypothesis upstages Freud by about 1900 years. In a similar vein, Plato (427–324 BCE) preempts Freud's id and Jung's shadow when he wrote: "In all of us, even in good men, there is a lawless wild beast nature which peers out in sleep." (Van de Castle, 1994, p. 64). Aristotle (384–322 BCE) was a highly astute observer when it came to sleep, dreams, and prodromal dreams. He wrote three short books, *On Sleep and Sleeplessness* Aristotle (1952a), *On Dreams* Aristotle (1952b), and *On Prophesying by Dreams* Aristotle (1952c). First, he argued

against his teacher Plato's belief (and against Hippocrates' belief) that astrology had something to do with dreams. Second, he did not believe in dreams inspired by gods. His argument against the latter is an interesting one. He wrote that divinely inspired dreams were not likely, because these dreams appeared to common people. It certainly would have been interesting to have been able to ask Aristotle why the gods would have reserved their messages for important people only. Third, Aristotle presented the still reasonable theory that we sleep to conserve energy. His argument is a brilliant one, nevertheless, for it also presages adaptation and evolutionary theories. He wrote:

> … *as we assert that Nature operates for the sake of an end, and that this end is a good; and that to every creature which is endowed by nature with the power to move, but cannot with pleasure to itself move always and continuously, rest is necessary and beneficial; and since, taught by experience, men apply to sleep this metaphorical term, calling it a 'rest': we conclude that its end is the conservation of animals.*
>
> **Aristotle (1952a, p. 698)**

Fourth, Aristotle was highly observant about the presence of sleep in living nature, as he wrote:

> *Accordingly, almost all other animals are clearly observed to partake in sleep, whether they are aquatic, aerial, or terrestrial, since fishes of all kinds, and mollusks, as well as all others which have eyes, have been seen sleeping. 'Hard-eyed' creatures and insects manifestly assume the posture of sleep; but the sleep of all such creatures is of such brief duration, so that often it might well baffle one's observation to decide whether they sleep or not.*
>
> **Aristotle (1952a, p. 697)**

Fifth, he noticed that "infants, for example, sleep a great deal," although for his reasoning he adopted a similar posture to Hippocrates about blood flow, temperature, and evaporative spirits moving up and down the body. This same incorrect reasoning led him to the correct conclusion that wine was not good for children or their wet nurses. Sixth, partially consistent with modern thought, he stated that: "A person awakes from sleep when digestion is complete," and, indeed, as stated in Chapter 2, the parasympathetic nervous system predominates during stage 4 (N3) sleep, and vegetative functions like digestion become much more active.

Another one of Aristotle's interesting passages was:

> *Nor is every presentation which occurs in sleep necessarily a dream. For in the first place, some persons [when asleep] actually, in a certain way, perceive sounds, light, savour, and contact; feebly, however, and, as it were, remotely.*
>
> **Aristotle (1952b, p. 706)**

There is also an earlier passage in this same work where Aristotle presented a similar thought, that is, not all thoughts or images that occur during sleep should be called dreams. This distinction was not made clear until late in the twentieth century, and indeed many still blur the distinction between thinking and imagery, between nonREM and REM sleep. Also, from this passage, it seems clear that Aristotle also presaged the modern notion that our sleeping brain is not resting but, in some aspects, remains highly active. He did, however, go on to describe the incorporation of external stimuli into sleeping cognition as distinctly different from dreaming, and this may not be the case, although the issue is debatable.

While all of these observations are acute and commendable, I began this review on thoughts about prophetic, divine, and prodromal dreams. It is at this point that Aristotle becomes most relevant. He wrote:

> *As to divination which takes place in sleep, and is said to be based on dreams, we cannot lightly either dismiss it with contempt or give it implicit confidence. The fact that all persons, or many, suppose dreams to possess a special significance, tends to inspire us with belief in it [such divination], as founded on the testimony of experience … Yet the fact of our seeing no probable cause to account for such divination tends to inspire us with distrust. For in addition to further unreasonableness, it is absurd to combine the idea that the sender of such dreams should be God with the fact that those to whom he sends them are not the best and wisest, but merely commonplace persons … Well then, the dreams in question must be regarded either as causes, or as tokens, of the events, or else as coincidences; either as all, or some, of these, or as one only. I use the word 'cause' in the sense in which the moon is [the cause] of an eclipse of the sun, or in which fatigue is [a cause] of fever; 'token' [in the sense in which] the entrance of a star [into the shadow] is a token of the eclipse, or [in which] roughness of the tongue [is a token] of fever; while by 'coincidence' I mean, for example, the occurrence of an eclipse of the sun while someone is taking a walk; for the walking is neither a token nor a cause of the eclipse, nor the eclipse [a cause or token] of the walking … Are we then to say that some dreams are causes, other tokens, e.g. of events taking place in the bodily organism? At all events, even scientific physicians tell us that one should pay diligent attention to dreams, and to hold this view is reasonable also for those who are not practitioners, but speculative philosophers … for example, dreamers fancy that they are affected by thunder and lightning, when in fact there are only faint ringing in their ears … or that they are walking through fire, and feeling intense heat, when there is only a slight warmth affecting certain parts of the body. When they are awakened, these things appear to them in their true character. But since the beginnings of all events are small, so, is clear, are those also of the diseases or other affections about to occur in our bodies. In conclusion, it is manifest that these beginnings must be more evident in sleeping than in waking moments.*

*Nay, indeed, it is not probable that some of the presentations which come before the mind in sleep may even be causes of the actions cognate to each of them … the cause whereof is that the dream-movement has had a way paved for it from the original movements set up in the daytime; exactly so, but conversely, it must happen that the movements set up first in sleep should also prove to be starting-points of actions to be performed in the daytime, since the recurrence by day of the thought of these actions also has had its way paved for it in the images before at night. Thus then it is quite conceivable that some dreams may be tokens and causes [of future events].*

*Most [so-called prophetic] dreams are, however, to be classed as mere co-incidences, especially all such as are extravagant.*

*On the whole, forasmuch as certain of the lower animals also dream, it may be concluded that dreams are not sent by God, nor are they designed for this purpose [to reveal the future]. They have a divine aspect, however, for Nature [their cause] is divinely planned, thought not itself divine. A special proof [of their not being sent by God] is this: the power of foreseeing the future and of having vivid dreams is found in persons of inferior type, which implies that God does not send their dreams … they just chance to have visions resembling objective facts, their luck in these matters being merely like that of persons who play at even and odd [a game of chance].*

**Aristotle (1952c, p. 707–708)**

## Possibilities for the origins of prophetic dreams

### Mere coincidence

Among these many ideas, I would like to summarize five possibilities for prophetic dreams starting with Aristotle's work. First, we have the possibility that prophetic dreams that come true are mere coincidences. This seems obvious and intuitively reasonable. We may dream of hundreds of ideas, people, thoughts, and images even within a month's worth of sleep. After a few years, one of these ideas comes true. We are filled with wonder despite the 999 dream ideas that did not come true. When flipping a coin, obtaining heads four times in a row is 1/16, but if I engage in long strings of coin tossing, eventually this low probability event will occur (Coolidge, 2021).

### Prodromal dreams

Second, we have the sophisticated Aristotle's notion that waking thoughts continue into sleep and sleeping thoughts may carry over into wakefulness. As Jung (1964) argued over 1900 years later:

> *Thus, dreams may sometimes announce certain situations long before they actually happen. This is not necessarily a miracle or a form of precognition. Many crises in our lives have a long unconscious history. We move toward them step by step, unaware of the dangers that are accumulating. But what we consciously fail to see is frequently perceived by our unconscious, which can pass the information on through dreams.*
>
> **Jung (1964, p. 36)**

I would argue that prodromal dreams may be a specific subtype of this category of dreams that interact with our waking thoughts and confirm Aristotle's notion that "the beginnings of all events are small," especially in diseases. For example, recently, a mother of five children heard I was writing this book, and told me: "I had an interesting dream. The night before I miscarried a child, I dreamt I had had my baby, but I lifted him up and handed him to an angel. Later that morning, I had my miscarriage."

In my 1984 study, *Dreams of The Dying*, my honors student, Cynthia Fish (whose father was an oncologist), had gathered dreams from 14 cancer patients, all of whom subsequently died of cancer. We had dreams for some of the patients from about 6 years up till about 1 month before they died. We found, not surprisingly, that death themes were quite frequent for about half of the group, and death themes occurred significantly more often than in a control group of physically healthy elderly people (who phenomenologically also face death). We also found that the cancer patients projected their death themes onto other dream characters more than about 85% of time (Coolidge & Fish, 1984).

In one tragic example, I had a student tell me that he had the recurring dream that his teeth were falling out. As we completed a literature search, we found that the dream was reported as far back as perhaps about 1750 BCE. Most fixed or glossarial interpretations portended death. We then found 14 college students who had his same recurring teeth-loss dream and tested them psychologically compared to a control group of "flight" recurring dreamers. We found that the teeth dreamers were significantly more depressed and felt less in control of their lives than the control group (Coolidge & Bracken, 1984). Five years later, this same student died in a car rollover in the mountains. Before anyone who has had this teeth-loss dream begins to panic, let me firmly restate my initial premise and Jung's: *There is no standard glossary of meaning for dreams*. It is also important to note that this particular student was an outgoing, brilliant but sometimes erratic, risk-taker. His female peers affectionately called him a "bad boy." It was clearly part of his charm. Remember, Jung said that dreams can warn us of

situations long before they happen, and we may be consciously "unaware of the dangers that are accumulating." So, he always drove without wearing a seat belt. It was dark. He was driving in the mountains. Like Jim Morrison of the rock group *The Doors*, one can tempt death only for so long. Finally, it is also important to note that I later supervised a doctoral student who could not replicate these findings in a much larger study of college students with the teeth-loss dream (Salk, 1999).

## Probability estimators

A third cause for prophetic dreams involves the overwhelming evidence that dreams cannot only solve problems, or inspire us to creativity, but also our dreams may serve as probability estimators. By this, I mean that we frequently explore themes in dreams that we would never or rarely entertain in real life, and some of these are taboo thoughts. For example, I had a vivacious, red-haired aunt (my mother's youngest sister). One night, I dreamt that she and I went riding on my motorcycle, with her arms and body clutched tightly to mine, and I also remember vividly that she was wearing a lime-green halter-top, as we drove about with the wind streaming through our hair. My brother was nearly physically sickened when I told him the dream (perhaps it was too much for a person living in the rural hills of Georgia). I will admit that I had entertained a very fleeting sexual fantasy or two about her in my waking life. My unconscious REM state, in good Aristotelian fashion, picked up on these semiconscious and unconscious issues and played out a more complete "what if?" in my dreams.

I think if we return to my first two opening examples in this chapter, we may be able to explain some prophetic dreams on the basis that they are not just instances of coincidence but that they are high probability events. It would not be unlikely that a president or leader of any country might have conscious and unconscious worries about being assassinated. It would not be unusual for these worries to be converted into dreams. We might postulate the same mechanism as previously discussed — REM as a probability estimator. In a ruler's conscious waking life, they may not wish to entertain the conscious fantasy of being assassinated, but dream sleep respects no such boundaries. The ideas we repress, fear, loathe, or forbid may all be dealt with during dream sleep. One example occurs in my office at the university on a semifrequent basis. A male student usually walks in, looks furtively about, and sits down reluctantly. "I have this dream," he sputters. His ambivalence in telling me is all too evident. "Let me guess," I

think to myself, "you dreamt you touched another man." Invariably he says, "I dreamt I touched another man." In my large general psychology class, I ask: "Guys! Does it feel good to touch another man?" A great silence always falls upon the classroom. Of course, it does. You can hug your brother like a bear. He will not break. He hugs you back with gusto. It feels good, but we men will not walk around discussing the pleasures of hugging or touching other men, even though we do hug and touch. Thus, in dream sleep, without self-criticism, self-loathing, or self-judgment, we will explore the theme, "I wonder what it would be like to touch another man." For gay men, a similar disturbing theme might occur, "What would it be like to touch a woman?"

## Divine inspiration

The fourth possibility for prophetic dreams is that they may be divinely inspired (previously mentioned in Chapter 3). Aristotle, just like Jung, does not entirely rule out the possibility that some dreams may be divinely inspired. As Aristotle logically argued, this type of dream's universality makes it compelling. As Jung argued, we are simply not listening. We are too caught up in the products and thinking of rational waking consciousness. It also reminds me, not only of Jung's rabbi who said no one today can bow low enough, but also of the humanist Abraham Maslow (1907–1970) who coined the term "the Jonah complex." Maslow would ask his students who among them would be the next president, brain surgeon, or Nobel Prize winner. When no one typically raised their hand, he said, "If not you, who?" His point was that they were acting like Jonah when God asked him to do something. Jonah felt too humbled to be able to do anything for God. Whereupon, Jonah was swallowed by a whale for 3 days, then spit up on the beach. The next time God asked Jonah for something, Jonah had learned his lesson. Do not be too humble. Aspire for greatness. Listen to God speaking. If not you, who?

For argument's sake, let us take the other position that no dreams are divinely inspired, either because there is no God, or because God is dead, or because God does not communicate through dreams. This hypothesis certainly should change the theoretical foundations of many religions, although I suspect that because religion and God are largely acts of faith, it probably would not change the actual practice of any religion. It would logically mean that some religions may have been founded on hallucinations, delusions, or simply on the basis of one person's random pons-lateral geniculate nucleus-occipital lobe electrochemical spikes. For some reason,

the latter is more frightening to me than the former (hallucinations or delusions). Interestingly, in mental hospitals, patients' hallucinations and delusions are often of an excessively religious nature.

## Synchronicity

The fifth and last of my explanations for prophetic dreams comes from Jung, although I suspect its theoretical roots were established by Aristotle. This Jungian hypothesis is known as synchronicity. In its simplest form, Jung proposed, "Even inanimate objects cooperate with the unconscious in the arrangement of symbolic patterns." For an example, he gave the frequent anecdotal reports of clocks stopping at the exact moment that their owners have died or mirrors breaking upon a death in the household. Certainly, our only other scientific option is to explain these occurrences through coincidence, because even current science has one basic rule by which we know and understand phenomena: the law of cause and effect. Jung has proposed, however, a second law: synchronicity, which stated that external events could be connected to internal events through nonvisible means. Jung also used the term *meaningful coincidence* to describe this relationship. Examples from our daily lives are plentiful, although Jung thought they were more likely to occur when we were in the throes of an emotional crisis or during a crucial phase of our self-growth or individuation. Jung also thought that the synchronistic events were triggered by an archetype in the collective unconscious.

A common example of synchronicity might be when we go to telephone a distant relative or friend, the phone rings, and it is them, or when we go to call them or they us, and the other says, "I was just thinking about you. I was just about to call you." Jung himself had a dramatic example in his private practice. He was seeing a depressed man in therapy, and while Jung left town for the weekend, he suddenly awoke with a strange and foreboding feeling that something was wrong with his patient. When he returned to his practice, he found out that the man had killed himself virtually within minutes of when Jung was suddenly awakened from sleep. On the surface, it may appear that this is another instance of coincidence, but Jung argued that these were meaningful coincidences connected to each other (i.e., Jung's unconscious thought that the patient was in serious trouble and the patient's suicide) but without a typical cause-effect relationship.

Recently in one of my dream seminars, a woman about 30 years old asked me about the possibility that dreams that do come true are simply high probability events. She told me that she had a recurring dream of

fuzzy, hairy animals. She said that invariably when she had the dream some disappointment followed. She said some relative confirmed that this was true about furry animal dreams in their family. However, she said she remained skeptical, because she knew that no one has to wait long for some disappointment in his or her life. Then, she asked me how I would explain the following dream, which she described as her most intense of all furry animal dreams.

> *Two furry little rats came up and were biting my toes. I was trying to pull away but I could not. I woke up scared. It was 4 a.m. At 6 a.m., the phone rang. My fiancé had been killed that morning in a car wreck.*

I told her I would not be inclined to explain her dream through probability estimation but through the concept of synchronicity, and I proceeded to explain this Jungian concept of meaningful coincidences. It is also fascinating to think either that Aristotle came perilously close to describing the same phenomenon when he described tokens in dreams or that he actually did describe the principle of synchronicity. Aristotle's logical explanation of how tokens have an association to the causal event, because waking actions pave the way for dream images, and vice versa, is at least as coherent an argument as Jung's.

## Summary

1. It is possible that prophetic dreams are merely coincidental. Out of thousands of our dreams, one comes true: Low probability events are eventually likely to occur.
2. Prophetic dreams may be explained by Aristotle's notion that waking thoughts continue into sleep, and sleeping thoughts may carry over into wakefulness. Prodromal dreams may be a specific subtype of this category of dreams consistent with Aristotle's proposal that "the beginnings of all events are small," especially in diseases.
3. A third cause of prophetic dreams might be that our dreams may serve as probability estimators, that is, we dream of many possible outcomes for our future courses of action, and sometimes we follow one of these courses.
4. A fourth possibility for prophetic dreams is that they may be divinely inspired. Theists would have a very tough time rejecting the notion that God could speak through dreams because the typical notion of a god is that They are all-powerful, and who could purport to know

the mind or will of God? Atheists would simply dismiss the notion of divinely inspired dreams.

5. A fifth possibility for prophetic dreams comes from both Jung and Aristotle. The Jungian hypothesis is known as synchronicity or meaningful coincidence. According to Jung, dreams may sometimes portend the future because events can be related beyond simple cause and effect. Aristotle also proposed that dreams may indeed contain tokens that may portend future events.

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# CHAPTER 9

# On the nature of recurrent dreams

> … *the most important dreams … the recurrent dreams … If something comes up again and again, it means that a gestalt is not closed. There is a problem which has not been completed and finished and therefore can't recede into the background.*
>
> *Perls (1969a, p. 16)*

A majority of people report having the same dream or dream theme over and over. Some say their repeating dream started in childhood (which Freud noted) while others report a later onset. Van de Castle (1994) has noted that earlier onset recurrent dreams are more likely to be disturbing while later onset recurrent dreams are more likely to be pleasant. There is also a category of dreams that Freud called *typical dreams* that may be highly recurrent although people may not report them as such. Typical dreams include themes of flying, falling, being chased, not being prepared for an examination, appearing nude or not dressed appropriately, or losing one's teeth (as has been noted earlier, this dream may be one of the oldest ever recorded). It appears that the research definition of recurrent dreams is vague and thus some people report they do not have recurrent dreams but say, yes, they do have frequent dreams of flying or falling.

## Freud

Freud defined a recurrent dream as a dream which is "first dreamt in childhood and then constantly reappears from time to time during adult sleep." Curiously, he added, "though I have never myself experienced one." Apparently Freud's interest in recurrent dreams was only that they served as evidence that dreams contain impressions from childhood that do not appear to be accessible to waking memory. Also curiously, Freud (1900) reported at least two dreams about his friend Otto in *The Interpretation of Dreams* and provided his readers with elaborate interpretations of Otto. Ironically, he did not view repeated dreams about his friend Otto as a

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recurrent dream theme, perhaps because his definition required the recurrent dream theme to appear first in childhood.

I am making these observations about recurrent dreams for two reasons. One, it is clear that the percentages of people reporting recurrent dreams will vary widely depending upon the dream researcher's definition and the way in which this question is worded to the subjects. Second, I am fascinated with Freud's dreams of Otto because of my own recurrent dream for the past 3 decades. I have dreamt of a buddy from Catholic school whom I met in the fifth grade, although the dream has declined in frequency from about once a month to once a year (and now never). The recurrent theme of the dream is that I see him (we both continue to age normally) but he will not talk to me. In real life, we were close friends from fifth grade through about ninth or 10th grade when I developed other friends and interests. By my senior year of high school we rarely spoke, although I had not made any conscious decision to drop him as a friend. We both went to different colleges. By graduate school, however, he was appearing in my dreams so frequently that I decided to find out where he was, look him up, talk to him, and get him out of my dreams. I soon learned that he was transferring to my university. Within the year, I called him up and arranged for a meeting with him and another one of our mutual friends from high school. As I left my apartment, I told my wife, "This is it. He's out of my dreams after tonight." As soon as I met him, I knew he was not the fellow in my dreams. It was his face, it was his name, but the fellow I had internalized a long time ago was not the same fellow who sat before me. Nevertheless, I tried renewing our friendship but we had grown into different people, and I never saw him again except in my dreams.

According to Van de Castle (1994), there is a consensus among clinicians that if one solves the underlying psychological enigma, then the recurrent dream will end. For about the past 15 years, in my dream interpretation workshops, I have presented my dream first, both to loosen the audience up by sharing with them and to get their help in solving the meaning of my dream. However, now I haven't had a dream of my old buddy in years. My suspicion is that, like Freud and Jung, dream images may carry more than one meaning (over-determination), and that this fellow in my dreams (me) represents more than one issue, like my own strong feelings about friendships, aging, and loss. Interestingly, as I write this, I am suddenly reminded about a conversation with my recurrent dream buddy that we had in the eighth grade lunchroom. I was turning 14 that year (he was about 10 months younger), and I remember telling him

alarmingly that we were aging and dying right before everyone's eyes yet no one seemed to care. "Fred," he said, in a blase manner, "there's nothing you can do about it."

## Carl Sagan

Carl Sagan (1977), the late astronomer, thought that recurrent, typical and frightening dreams replay our ancient evolutionary history. For example, he noted that there appears to be only three genetically controlled inherited fears in most young primates: fear of falling, fear of snakes, and fear of the dark. He linked these fears to our early evolutionary history when our earliest ancestors were tree-dwellers (the youngest of human infants can still be lifted from the ground by the strength of their grip, which may be an ancient reflex for holding on to our ancient ancestral mother's hairy body). He also links them to an ancient evolutionary competition between mammals and reptiles (like snakes). Interestingly, a reptile, the snake, leads to the downfall of Adam and Eve in the Bible. Finally, Sagan links these dreams to fears of night predators, which cannot be seen well in the dark. This latter example strengthens Webb's (1975) argument that we evolved sleep to protect us from wandering around and falling prey to dangers in the night.

It is also interesting to speculate about the three other typical dreams we have not yet explained, the examination dream, appearing nude, and the loss of teeth. The examination dream, which Freud (1900) described elaborately in *The Interpretation of Dreams*, usually involves the dreamer not being prepared for some task. On a recent bike trip with a psychiatrist, he confided in me that his only recurrent dream was where he was playing in his college band (which he had not done in about 25 years). In the dream, he was always unprepared and had not practiced. Interestingly, Freud had noted that this dream only occurs with tasks where we have been actually successful in waking life. It is possible that the examination dream is an ancient archetypal dream where we might be undertaking a life-threatening task, like an animal hunt. By having the fear of being unprepared, the dreamer awakens and is consciously reminded by the anxiety of the dream to bring along enough spears, to sharpen the spears, to remember the ropes, etc. The examination dream may reflect threat rehearsal or an unconscious priming mechanism that upon awakening insures the success of the task, as noted in Chapter 2.

The dream of appearing nude or inappropriately dressed, as I have already noted for other dreams, may also be overdetermined (have more than one cause). However, its evolutionary roots are relatively transparent. Once I did a 75-mile bike trip through a 9500 ft Colorado mountain pass. My friend Mike and I, as had become typical, seriously misjudged how long it would take us. As we climbed the pass with just 15 miles to our hotel, it started to get dark, and it gets cold in Colorado at night anytime of the year, but particularly when you are biking over a 9500 ft mountain pass. We put on what little extra clothes we had, not thinking we might get caught out in the dark. I was freezing; I began to shiver with the first sign of hypothermia. There were no cars passing us. If we had stopped, we would have probably fallen unconscious and died from the cold. We had no choice but to continue shivering and pedaling. When we reached the summit, we had only five miles of coasting downhill to go. I remember my brief joy when we started to coast but a new fear struck! The wind-chill temperature! As we started to hit 30 miles an hour, I started to feel, in terror, numbness in my hands and feet. When we arrived at the hotel, I have never felt so good taking a hot shower. Thus, it is easy for me to imagine, especially when our ancestors were not so protected from their environment that their dreams of being nude or inappropriately dressed may have also served an unconscious priming function that later warns the conscious self of the Boy Scout motto: Be prepared!

Finally, I have already discussed my first empirical study (Coolidge & Bracken, 1984) of the loss of teeth in dreams in Chapter 8. In the Jewish Talmud, the loss of teeth dream is interpreted as the future death of a family member. Even 4000 years ago, Egyptians interpreted the tooth-loss dream as the death of the dreamer by the machinations of one's relatives. Much later, Freud commented on the dream's association with death, and the Native American Navajo also thought it portended death of a family member. It is relatively easy to see how the dream might become associated with ancient ancestral fears of aging and death, because tooth loss later in the adult lifespan is concomitant with dietary changes and other physical changes that herald the end of our lives. Also, the loss of teeth may have been concomitant with muscular and strength changes that signaled a loss of power and physical prowess.

However, it is also important to remember that we do not lose our teeth for the first time in later adult life. Freud may have been right when he wrote that many dreams replay early childhood impressions. The tooth-loss dream may replay the losing of our baby teeth when we were young, and those early fears about losing our teeth may be retriggered in later

adulthood, well before the actual physical loss of teeth. Thus, the tooth-loss dream may be relatively unique in that it may replay not only our phylogeny but also our ontogeny.

## Carl Jung

Jung (1964) attached far more significance to recurrent dreams than Freud. Jung even proposed three possibilities for recurring dreams:

> *A dream of this kind is usually an attempt to compensate for a particular defect in the dreamer's attitude to life; or it may date from a traumatic moment that has left behind some specific prejudice. It may also sometimes anticipate a future event of importance.*
>
> *Jung (1964, p. 40)*

Jung (1964) gave the example of his own recurring dream: he dreamt that he had discovered some new part of his house that he had not known existed before. He wrote:

> *Sometimes it was the quarters where my long-dead parents lived, in which my father, to my surprise, had a laboratory where he studied the comparative anatomy of fish, and my mother ran a hotel for ghostly visitors. Usually this unfamiliar guest wing was an ancient historical building, long forgotten, yet my inherited property. It contained interesting antique furniture, and toward the end of this series of dreams I discovered an old library whose books were unknown to me. Finally in the last dream, I opened one of the books and found in it a profusion of the most marvelous symbolic pictures. When I awoke, my heart was palpitating with excitement.*
>
> *Jung (1964, p. 40)*

> *… [T]he motif of my recurring dream can be easily understood. The house, of course, was a symbol of my personality and its conscious field of interests; and the unknown annex represented the anticipation of a new field of interest and research of which my conscious mind was at that time unaware. From that moment, 30 years ago, I never had the dream again.*
>
> *Jung (1964, p. 40)*

I find it interesting that Jung thought it so easy to interpret his own recurring dream. He obviously thought the dream had only one meaning, his third type of recurring dream, the anticipation of some future event. I think it gives us some insight into the difficulties of interpreting our own dreams. First, Jung overlooked Freud's idea that the dream was a wish-fulfilling dream, and I can see at least two wishes in the dream: his long-dead parents are alive, and he finds some "marvelous symbolic pictures" in a book.

Second, given that Jung claimed our shadow contains everything that we fear to acknowledge about ourselves, why could he not at least postulate that there may have been other possibilities for interpretation? Was Jung that consciously well defended? I think that he was and it helps clarify some of the trouble between Freud and Jung. Freud may have acted too paternally, autocratically, and dogmatically with Jung, but Jung had his own strong ego defenses. Freud claimed that Jung wished him dead. Jung always denied it, yet he had a dream about the time of their fateful breakup where Jung helped kill a man named Siegfried.

In defense of Jung and his interpretation of his own dream, Jung thought his own insight into his own dream was sufficient. Jung thought that dreams were not a facade, a dream's picture contains its entire meaning. There is no deception in dreams. Jung (1964) wrote:

> *My intuition consisted of the sudden and most unexpected insight into the fact that my dream meant myself, my life and my world, my whole reality against a theoretical structure erected by another, strange mind for reasons and purposes of its own. It was not Freud's dream, it was mine; and I understood suddenly in a flash what my dream meant.*
>
> *Jung (1964, p. 44)*

Two paragraphs later he wrote this strong affirmation of his dream position:

> *The individual is the only reality. The further we move away from the individual toward abstract ideas about* Homo Sapiens*, the more likely we are to fall into error.*
>
> *Jung (1964, p. 45)*

Also to Jung's credit, when he had finished interpreting his recurring house dream to his own immediate satisfaction, he said that he never dreamt about it again. This, of course, does not mean that Jung is correct in his assertions about recurring dreams, but it does mean that he obviously believed his assertions. Domhoff (1996) noted that clinical lore, based on studies and surveys, asserts that once the underlying problem has been solved, the recurrent dream will disappear.

## Fritz Perls

As noted at the outset of this chapter, Perls thought that the most important dreams were the recurring type. He objected to the Freudian notion that these dreams represented a kind of compulsive repetition leading to

psychological petrification and death. Perls believed that the opposite was actually true. He thought that these dreams had the potential to help us solve major unfinished issues in our lives. Perls (1969a) wrote:

> *If something comes up again and again, it means that a gestalt has not been closed. There is a problem which has not been completed and finished and therefore can't recede into the background. So if anything, it's an attempt to become alive, to come to grips with things. And very often these repetitive dreams are nightmares. Again, it's the opposite from Freud who thought that dreams are wishful thinking. In the nightmares you find always how you frustrate yourself.*
>
> *Perls (1969a, p. 16)*

Of course, as noted earlier, Freud later changed his mind about all dreams being wish fulfilling when he began seeing WWI veterans for their terrible nightmares. Further, Freud even pondered the idea that these nightmares associated with extreme trauma might be attempts by the ego to gain mastery over the issue. In this contention, I think he and Perls would completely agree. This relationship between major traumatic events, especially death-related, and recurrent dreams has received a fair amount of empirical study, even during this COVID-19 pandemic (see Chapter 11 for further details).

In the 1980s there were a number of empirical investigations of the recurrent traumatic dreams of Vietnam veterans (e.g., Hartmann, 1984; Kramer et al., 1987). This research showed that the soldiers who were most likely to suffer from these dreams after their traumatic experiences were younger, less educated, and emotionally closer to someone who was killed or injured. Also, traumatic recurrent dreams appeared to dissipate and change into ordinary dreams over time and did so more quickly with group therapy. A spontaneous recurrence of the traumatic dreams was also observed when new stressors like divorce entered the picture.

For an example of the latter (new stressors increase the frequency of traumatic dreams), the USA tragedy of 9/11 spawned a number of dreams studies (e.g., Bulkeley & Kahan, 2008; Hartmann & Basile, 2003). Further, there are now investigations of the psychological effects of the COVID-19 virus upon dreams. Recently, Barrett (2020) compared the recent dreams of 2888 adults since the pandemic to prior normative dreams. In general, she confirmed that there was a thematic continuity between dreams and waking concerns, as has been emphasized throughout this book. Further, and not surprisingly, she found that death themes were three times higher for dreams during the pandemic than before. She attributed this finding to

"… the fact that waking reactions to the pandemic include not only obvious fears of dying of the virus but also reflections on human mortality and remembrances of deceased loved ones" (Barrett 2020, p. 219).

The situation is not bleak, however. These studies of recurrent trauma dreams reinforce the central premise of this book: dreams are a unique and personal way of understanding ourselves, dealing with unfinished business from our pasts, and mollifying and eliminating present threats and future fears. And again, it also highlights a non-specific but major critical operational factor in dream therapy and all kinds of other psychotherapies … awareness, per se, is curative.

## Summary

1. It appears that what constitutes a recurrent dream is vaguely defined throughout the literature.
2. Freud dismissed recurring dreams as simple childhood remembrances, and said he had never had one himself, but proceeded to give many examples of repeated people and themes from his dreams.
3. Jung thought recurrent dreams were important and gave three common types: a perceived defect in the dreamer, a trauma, or a future anticipation.
4. Perls also thought recurrent dreams were important, if not the most important kind type of dream, because he believed that recurrent dreams were attempts to solve major unfinished issues.
5. Current clinical lore suggests that recurrent dreams will dissipate with time or therapy or if a solution to the underlying issue is discovered.

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# CHAPTER 10

# A synthesis of dream interpretation techniques

*When I wake up early in the morning, lift my head, I'm still yawning. When I'm in the middle of a dream, stay in bed, float up stream (float up stream). Please, don't wake me. No, don't shake me. Leave me where I am. I'm only sleeping.*

***Beatles, I'm only Sleeping, 1966***

I actually think the lyrics of this Beatles song completely underestimates the great value of sleep and dreams as has been emphasized throughout this book. And yet its simple words intuitively manage to note the muscle paralysis that occurs during REM sleep by associating it with a "floating" feeling. Perhaps, there is actually a profoundness and an intentional irony when the Beatles say, "I'm only sleeping," as if they are accomplishing far more than that while asleep. As was noted in Chapter 2, sleep and dreams are restorative both psychologically and physiologically, they facilitate learning and memory, they may prime us and warn us of future events, and they are a well-documented source of creative works and innovations throughout history. I have also proposed that evolutionary changes from sleeping in trees to sleeping on the ground may have had one of the most demonstrable effects on cognitive processing in *Homo sapiens*' long lineage (Coolidge, 2020; Coolidge & Wynn, 2006, 2018). But even more importantly, dream interpretation has played a major historical role in the ontogeny of psychotherapy. In my opinion, it is a somewhat sad state of affairs in the current training of psychotherapists that dream interpretation is largely ignored and that its power to heal has largely been forgotten. Further, it is as if the use of dreams in therapy currently has an unscientific or even 'flaky' reputation when, first, it is not as if other types of psychotherapy have clearly documented foundations for why they work (e.g., *Eye Movement Desensitization and Reprocessing* [EMDR]), and second, dream interpretation has played a major role in the therapies of the two most monumental figures in the history of psychology, Sigmund Freud and Carl Jung.

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Thus, in this chapter, I shall summarize some of the dream techniques that I have found most useful in interpreting dreams. I will also give numerous examples of my dream interpretation experiences from the classroom, dream workshops (e.g., Coolidge, 1999), and therapy sessions.

## Principle 1: dreams form a hierarchy of unfinished business

Perls suggested that our psychological issues formed a hierarchy of unfinished business. Because I believe, like Freud, Jung, and Perls, that dreams contain elements of our past, present, and future, I think dreams have the potential to reveal deep secrets, repressed thoughts and problems, and issues on the edges of consciousness. I suggest listening very carefully to a person's dream. I strongly suggest not asking too many informational or logical questions about the individual's dream story. Take the dream at face value. However, I do recommend actively forming hypotheses about what unfinished business the dream story could contain. Your goal should be to bring forth some unfinished business to consciousness. As Freud said, "where id was, ego shall be." Awareness, per se, is thought to be curative. From Perls' perspective, you should help dreamers become aware and reown fragmented parts of their personalities.

## Dream example 1: Duke, the neglected dog

A divorced woman in her forties shared this recurring dream: "I had a Rottweiler named Duke, and about 5 years ago I had to give him away because we were moving. He went to a very good home but I felt bad about it. About a year ago I started having this dream, which I've since had about five times. In the dream, I've forgotten I've had him [forgotten I still own him]. It dawned on me that I haven't fed him or watered him for weeks … "

At that very point I interrupted her. To me, the neglected dog was too compelling.

Become Duke, I said. She paused and looked at me, then away.

Duke would say … she started to say, and I interrupted again.

No, no, I said. You become Duke.

I love you anyway, she said in a flat, monotone voice.

Say it with more meaning, I said.

Without crying? she asked, and she turned her head away with tears welling up in her eyes.

Why did you cry? I asked. What did that make you think about?

As she regained her composure, she said, I grew up in a very legalistic family.

I thought the choice of the word "legalistic" was very intriguing, and I asked her about it. She said she was raised by her stepfather who she said was "very unforgiving" and conditional. When I probed her about the latter description she said that he set up conditions which she felt obliged to follow, such as maintaining a weight he set for her, all "A" grades at school, etc. She said it was "hell" living with him. And then she very quickly freely associated to what she described as another "hellish" situation with her former husband who cheated on her.

At this point, she made the connection that saying "I love you anyway" when she became Duke might be a message from her unconscious self to her conscious self. She pondered, without any additional questions or comments from me, whether she had truly begun to forgive herself for feeling so bad about her stepfather's unloving harshness and her ex-husband's cheating ways.

## Principle 2: people have a tendency to avoid and alienate the holes in their personalities despite their compensating need for wholeness. Watch for these holes in dreams

Perls also pointed out that this tendency to dissociate and disown even occurs physically. Rather than saying, "I am fingers," we say, "I have fingers." It may also be considered a Western culture phenomenon to locate the center of consciousness in our heads, which no doubt contributes to some of our dissociative tendencies. Easterners, particularly the Chinese and Japanese, are much more likely to ascribe the center of consciousness near the navel. In fact, one of the reasons that some Buddha statues have big bellies is not only the connotation of health and wellbeing but also because Buddha is ascribed to possess a belly-centered consciousness. One time on a river trip with my brother Tom, I stood relaxed and contemplative on the banks of an oak tree-lined river, meditating on its pristine beauty. My brother came up and poked my belly and said unpoetically, "You're getting a gut." I countered, "Ah, it is not a gut. I have belly-centered consciousness."

## Example 2: I have headaches or I am a headache

Another sign of this dissociative process occurs when we say, "I have a backache." I once did a clinical internship in a campus counseling center. A fellow I saw for the first time said that he had been sent over from the medical center because:

I have headaches.

When did they send you over, I asked.

A year ago, he replied.

Immediately, I thought this fellow was guarded, distrusting of therapy, and ambivalent. These hypotheses were also supported by his body language and general demeanor. The situation required some risky measures. I trusted that on some intuitive level, if I could show him some value of therapy, he might return. After all, although he took a year to get here, he was here. I decided to take the risk. The next thing I said to him was:

Say, I am a headache.

He said, What? with some degree of skepticism.

I said, You told me you have headaches. I said tell it to me this way, I am a headache, instead of saying, I have a headache.

He paused, looked at me, and said meekly, I am a headache.

I said, Say it again but louder.

I was getting anxious. I could feel it building. Would this work? Yet he said it again, and so I pressed him once more to say it like he really meant it.

Finally he said forcefully, I AM A HEADACHE! I AM A HEADACHE! And then he added softly and sadly, I am a headache to myself.

How? I asked. And therapy proceeded semi-smoothly for a full college quarter as we discussed various examples of his self-defeating behaviors.

I had used Perls' techniques for making the patient take responsibility for dissociation and making the patient amplify a statement forcefully and meaningfully. I was also amazed that I had taken such risks in therapy, following my readings of Perls but also following my intuition. Moreover, we had arrived at a major unfinished issue for this fellow without a review of his family history or even his dreams! Thus, we return to my original thesis statement, and I will add to it.

We have a psychological tendency to complete tasks, and we tend to remember unfinished tasks better than completed ones (called the *Zeigarnik effect*). Anxiety arises when we fail to complete them. As Perls noted we operate on a continuum of awareness, and the most important unfinished business eventually emerges into awareness. Perls also thought

that we had hundreds of these unfinished issues that arrange themselves hierarchically. So we have a number one piece of unfinished business, a number two, etc. I point out to my classes that, no doubt, some issues sometimes take over number one but on a temporary basis: for example, when we worry about paying a certain bill or studying for a test, etc. However, these issues come and go relatively quickly. I think Perls was referring to issues that would average number one over a long period of time. When I am listening to people's dreams, I have noticed that some issues tend to be in most people's hierarchy. I have found that issues about death are common, not feeling the love of a parent, independence–dependence issues, etc. Perls uses dreams to bring out the unfinished business. He achieves this by listening carefully to not only what the patient says, but also how they say it, their body language, and the melody of their entire demeanor. Perls (1969) wrote:

So how do we proceed in Gestalt Therapy? We have a very simple means to get the patient to find out what his [sic] own missing potential is. Namely, the patient uses me, the therapist, as a projection screen, and he expects of me exactly what he can't mobilize in himself. And in this process, we make the peculiar discovery that no one of us is complete, that everyone has holes in his personality.

Now these missing holes are always visible. They are always there in the patient's projection onto the therapist … Then the therapist must provide the opportunity, the situation in which the person can grow. And the means is that we frustrate the patient in such a way that he is forced to develop his own potential. We apply enough skillful frustration so that the patient is forced to find his own way, discover his own possibilities, his own potential, and discover that what he expects from the therapist, he can do just as well himself.

> *So what we are trying to do in therapy is step-by-step to re-own the disowned parts of the personality until the person becomes strong enough to facilitate his own growth, to learn to understand where are the holes, what are the symptoms of the holes. And the symptoms of the holes are always indicated by one word;* avoidance.
>
> **Perls (1969, pp. 36–38)**

Now we have come to a major irony. Like Perls I do believe that dreams reveal our major unfinished businesses. However, in the strictest sense, *I do not interpret dreams and neither did Perls!* Perls (1969) wrote:

… we don't interpret dreams. We do something much more interesting with them. Instead of analyzing and further cutting up the dream, we want to bring it to life … Instead of telling the dream as if it were a story in the past, act it out in the present, so that it becomes a part of yourself, so that you are really involved.

> *If you understand what you can do with dreams, you can do a tremendous lot for yourself on your own. Just take any old dream or dream fragment, it doesn't matter. As long as a dream is remembered, it is still alive and available, and it still contains an unfinished, unassimilated situation. When we are working on dreams, we usually take only a small little bit from the dream, because you can get so much from even a little bit.*
>
> **Perls (1969, pp. 68–99)**

So a major irony is that dreams are simply a vehicle to get at unfinished business. I do not care about the logic of the dream. I do not care to hear about endless dream characters and story shifts. People are frequently disappointed when I do not let them finish telling me their long and sometimes boring dreams. I stop them as soon as I hear (and intuit) some interesting, provocative, compelling, or curious feature in the dream. At that point, I have the person become that object or person. Most of the time, I favor inanimate objects over people because most dreamers write scripts for the people in their dreams all too easily. Perls (1969) urged his dreamers to:

> … *write a script … ham it up. Really* become *that thing — whatever it is in a dream —* become *it. Use your magic. Turn into that ugly frog or whatever is there — the dead thing, the live thing, the demon — and stop thinking. Lose your mind and come to your senses. Every little bit is a piece of the jigsaw puzzle, which together will make up a much larger whole — a much stronger, happier, more completely* real *personality.*
>
> **Perls (1969, p. 69)**

Jung (1964), even earlier than Perls, wrote about this dissociative process, the usefulness of dreams in reclaiming the unconscious and the wholeness that results:

> *In this respect, dream symbols are the essential message carriers from the instinctive to the rational parts of the human mind, and their interpretation enriches the poverty of consciousness so that it learns to understand again the forgotten language of the instincts.*
>
> **Jung (1964, p. 52)**

## Principle 3: have the dreamer become part of the dream and write a script. I favor inanimate objects over animate objects in the dream

When I have chosen the object I want the dreamer to become, I say to them: "Become that object. What would it say if it could talk to you?" Sometimes, at this point, people stare at me incredulously. "What do you mean?" they ask.

"Become the object," I repeat. "Pretend you are an actor or actress. Make it talk. Make it say something to you."

Here, I sometimes get from the dreamer, "It would say … ", and I stop them immediately. "No. Become the object. Don't talk in the third person". Start with, "I am … I feel … "

I would estimate that about 90% of the time, the dreamer will successfully generate some statement. Typically it is very short, maybe five to seven words. I have had two recent dreamers produce two words and three words respectively. Yet in both cases, the dreamers and I were satisfied that we had indeed discovered major unfinished issues.

## Dream example 3: take us out

This three-word example came from a 21-year-old former GI who was returning to college. He came to my office after a general psychology lecture. He said that I had mentioned in class the dream about loss of teeth. He said that this dream was a recurrent one for him for the past 4 years. I asked him to describe the dream, and he said he had it at least once a week. He said that he usually wipes his mouth in the dream with the back of his wrist, and groups of his teeth, likes twos and threes, will be on his wrist amidst blood.

Become the teeth, I said. What would they say to you?

Become the teeth? he asked politely.

I nodded.

Take us out, he said. I was fascinated.

I now interrupt this example, to introduce my fourth principle.

## Principle 4: listen carefully to the language of the dreamer

I present this principle at this point, because I had a traumatic experience with a girl (Pat, not her real name) in the eighth grade over what she supposedly had said. I paraphrased what I thought she said to someone else. That someone told her what I said that she had said. Pat found me in the

hallway and gave me a tongue-lashing I have not forgotten. Suffice to say, do not attempt to paraphrase what a dreamer has said. Simply memorize, as best you can, by repeating out loud whatever the person says. In this case, I repeated, "Take us out?" and he nodded.

Before proceeding any further, however, I try to follow Perls' example of trying to enliven the statement, trying to make the dreamer own it or trying to make the dreamer show some emotional involvement. So I said:

Say it again but louder.

Take us out, he said, virtually repeating the monotone way he said it first.

Say it again but mean it! I said forcefully.

TAKE US OUT! he said loudly but still flatly, but I decided I had done enough skillful frustration for the present. I did not wish to ruin the rapport.

I said, What does that make you think about in your life?

He paused reflectively. I kept myself stifled, enduring the pregnant silence.

Nothing, he said. I waited another slow pregnant moment.

I broke the silence but I recommend that you wait as long as necessary for the dreamer to say something first. I said:

Who might you say that to in your life? Take us out!

No one, he said softly after another long wait.

I do think a bad hypothesis is better than no hypothesis so I said:

Do you have a sibling? I thought, perhaps, because the teeth in his dream were in twos and threes, such that they might symbolize siblings.

Yes, a brother, he said.

Would you say that to your parents?

Here, I was thinking that maybe he and his brother were too sheltered, and he wanted his parents to take them to the movies, on vacation, etc.

No, he said more animatedly. I love my parents.

I suddenly realized I may have misunderstood his phrase. To him, Take us out, might have meant something bad. So I asked him. Indeed, he said it meant to get rid of something, like wipe it out.

Let's take it as a message to yourself, I said. Make your teeth, in groups of twos and threes, talk to you and say, Take us out! What might that mean to you?

He paused again. I think I know, he said.

What? I asked gently.

There's parts of me that I don't like. I'd like to get rid of some things.

Like what? I said.

I'm an introvert. I wish I could just change that. Take it out.

Well, I think that's one of the meanings of your dream, I said.

Next, I tested whether he thought that this issue was an important one for him (high in his hierarchy). He agreed without hesitation.

It is important to point out a difference between Freud and Perls on this point. If a dreamer said "no" to this question, in other words, saying that this was not a very important issue for them, Perls would accept it. Perhaps, the therapist was simply wrong, Perls reasoned. It is possible, of course, that we might be wrong, despite our good intuitions and our best hypotheses. Perls also said it is possible that you were right but it was not yet time for the dreamer to admit it. He cautioned therapists to be patient. In contrast, Freud would probably have taken the "no" as a sign of unconscious resistance (or even of denial and conscious resistance) to the truth of his hypothesis. What if you still feel your interpretation is correct but the person is denying it? Again, I would caution you to be patient. My intuition tells me the truth (an unconscious) but unfinished business might eventually "out" itself. If it does not, the issue may not be important enough at this point in time.

## Principle 5: everything in the dream is a projected aspect of the dreamer. However, unfinished psychological issues can be raised by having a person create a script with anything. This technique can be used with people who say they do not dream

Everyone dreams (REM sleep). When I was in graduate school and working in a NASA-sponsored sleep lab, I had a friend tell me he did not dream. His wife noddingly agreed that he never reported a dream. So one evening, when all sleep researchers had left the lab, I had him come in, attached electrodes to his head, and waited about 90 min. Sure enough, his cortical electrodes resembled stage 1 (N1) sleep but his eye electrodes showed bursts of movement (i.e., REM sleep). I awakened him, and he looked up at me smiling. I asked him why the smile. He said, "Because I was dreaming."

Thus, the issue is simply appears that some people do not remember their dreams, and the solution is simple. Simply becoming aware about one's dreams seems to help people to remember. Interestingly, while I worked in the sleep lab, I would go home, and I would have dreams I was

working in the sleep lab and monitoring people's sleep on the EEG. I recommend to people who say they cannot remember their dreams to put a pad of paper and a pencil (or a tablet) beside their bed before they go to sleep, and it will invariably enhance one's memory for dreams. I also encourage those who say they do not remember their dreams to record their dreams before getting out of bed. It is well known that dreams are forgotten quickly upon awakening. If you are sleeping with another person and you both awaken at the same time, telling each other your dreams is another good mnemonic technique.

## Dream example 3: gone fishing

A woman about 35 years old was enrolled in a counseling class I was teaching. We covered a section on dream interpretation in psychotherapy. She told the class that she never remembered a dream.

Never? I asked.

Never, she said firmly.

Not a bit, not a fragment, not a childhood dream, a nightmare, nothing? I asked incredulously.

Nothing, she said in what seemed like a sinister way.

Well, I said cockily. Put some paper and a pencil beside your bed before you go to sleep. When you awaken try to remember something about your dreams. Anything. And do not go to the bathroom first. The dream will fade quickly if you do.

This course met 5 days a week for 2 weeks. So the next day, I think we all looked forward to what she would say. Everyone had been given the homework assignment to bring in a dream — recent, recurring, a nightmare, or any remembered dream fragment. As soon as we assembled, I looked at her.

So? I said.

Nothing, she smiled.

Did you put a pencil and paper beside your bed? I asked.

No, she said, because I knew it wouldn't work. I made a face of incredulity. The class giggled.

Humor me, I said, pretending to be weak with frustration. Please just try it! I added.

The next day in class, she came in with a sheepish look.

I don't believe it, she said. I don't remember dreaming, but when I woke up I found that sometime during the night I had written this, and she

handed me a sheet of paper with two words on it: Gone fishing. The class eagerly awaited my response.

I think this could be a message to yourself, I said. What does it make you think about?

I don't know, she said appearing truly perplexed.

Think about your unfinished business, I said (we had already covered Perls and Gestalt Therapy so she was familiar with the language).

What could the message mean? I added.

She paused and pondered and then she lit up like a light bulb.

Oh, I know, she said. I need a vacation.

I remained quiet. Something was welling up inside her. Her voice became more confident.

I am a single mother with three kids. I'm trying to go complete this Master's degree program. I get no help whatsoever from my ex-husband, his parents, or my parents. I have to be the responsible one for everything, every minute of the day and night. Just once, I'd like to put up a sign that says, Gone fishing.

Do you think that this is an issue that you'd benefit by sharing in therapy? I asked.

Of course, she said. It's my biggest issue.

Note that I try to assess how well I have raised an issue in person's hierarchy of unfinished business. I have given examples where I have succeeded. On occasion, I do miss. Either the dreamer tells me it is an issue but they do not feel it a very important one, or they tell me they do not feel it is an issue at all. The latter circumstance is rare, however. It simply is *not* hard to generate some topic for therapy with this dream technique.

Most of the time, the technique works so easily that I am reminded of Jung's (1964) warning:

This episode [a colleague's free association] opened my eyes to the fact that it was not necessary to use a dream as the point of departure for the process of 'free association' if one wished to discover the complexes of a patient. It showed me that one can reach the center directly from any point of the compass. One could begin from Cyrillic letters, from meditations upon a crystal ball, a prayer wheel, or a modern painting or even casual conversation about some trivial event. The dream was no more and no less useful in this respect than any other starting point. Nevertheless, dreams have a particular significance, even though they often arise from an emotional upset in which the habitual complexes are also involved. [Note: habitual complexes are the tender spots of the psyche, which react most

quickly to an external stimulus or disturbance.] That is why free association can lead one from any dream to the critical secret thoughts.

> *At this point … it might reasonably follow that dreams have some special and more significant function of their own … I therefore began to consider whether one should pay more attention to the actual form and content of a dream, rather than allowing 'free association' to lead one off through a train of ideas to complexes that could easily be reached by other means.*
>
> **Jung (1964, pp. 27–28)**

At this point, I would argue with Jung on three counts. First, I admit that the dream techniques I am using appear to involve free association. However, it is not clear to me that the material I end up discussing with the dreamer could have been reached by any other means. Dreams are a unique and yet surreptitious method of reaching unconscious issues. Second, with very few exceptions, I am always using the dream to direct my inquiry. I am not using a crystal ball or tea leaves or Cyrillic letters. I am using a dream. Jung himself proposed that the dreams should direct therapy. The techniques I am using do just that. Third, even if all that I am reaching are "habitual complexes," I do not feel that is a simple feat. Patients enter therapy with conscious and unconscious resistances and lifetimes' of dissociations and alienations. If, in the space of only a few minutes, my patient and I are discussing something that, by their own admission, is an important topic (high in their hierarchy of unfinished business) who am I or who is Jung to disagree?

In fact, Jung himself said that dream symbols are, by definition, hidden, vague, and ultimately unknowable. I think one could err, much more readily, in the opposite direction, by wasting the patient's time turning a dream over and over again. Jung even stated that dreams should be accepted as facts, and dreams are specific expressions of the unconscious. If a woman tells me that her dream told her to go fishing, then I am not about to argue with her or the wisdom of her dream interpretation. In fact, delaying *that* message would be absurd. I have also seen cases where the therapist is overly fascinated with a patient's dream. The therapist may subsequently ask for additional details that may be irrelevant to the therapeutic process. I feel that delaying discussions of important psychological issues that arise in dreams might even be considered unethical and voyeuristic.

## Dream example 4: no dream, no time

In dream workshops where I lecture for a single session, if someone says that they do not dream, I do not have the luxury of sending them home to

sleep with a notepad. This is where I make my single exception to trying to reach the hierarchy of unfinished business by way of a dream. In one of my workshops, a woman about 25 years old raised her hand and said she never remembered a dream or even a fragment.

I said, "Imagine when you wake up and there's this dream that you don't remember in your room. What would that dream say to you as you are lying in bed?"

Why don't you remember me? she said.

What would you say back to the dream? I asked.

You're not important. You don't matter, she said with a sudden kind of sad realization in her voice.

I admit I was stunned! I would never have imagined a dream unremembered would say that. In addition, it was clear that some feelings of inferiority or low self-concept had been revealed. Because I refrain from actually doing therapy with my workshop attendees, I did not proceed further. My main purpose was to demonstrate to the class how quickly and efficiently unfinished business (unconscious issues) may arise through dreams — even if unremembered.

You thought of something in your hierarchy? I asked gently.

Yes, she said, and I pressed no further and thanked her for being so brave in front of the class.

## Dream example 5: don't eat here!

In another dream workshop at a local community college, I asked the class for a recurring dream. The first person to volunteer was a 28-year-old woman who said she dreamt repeatedly of a hostage situation at a fast food restaurant. She told me the dream that simply and quickly. I was then forced to think quickly and thought she could either become a hostage or the restaurant.

Because I strongly prefer inanimate objects, I told her to become the restaurant.

You want me to become the restaurant? she asked with doubt.

Yes. Just like an actress. Become the restaurant. What would you say?

I'd say, don't eat here. The class laughed.

Because I had already given the class at least an hour or more of an introduction to sleep, dreams, and Perls' idea about unfinished business in dreams, I asked the class to generate possibilities for unfinished business in her statement.

She doesn't like fast food, said someone.

She doesn't like restaurants, said another.

I was disappointed because I felt like these suggestions were simply manifest meanings. "No," I said, "think big unfinished issues. Life issues."

A man about 40 years old sitting in the back raised his hand and said,

Maybe she doesn't like living here. Maybe food is like a connection to a place. Like sustenance. Maybe she'd like to move and eat. I mean like live somewhere else.

OK, I said. I think that's better. Please don't just sit there. Think! A bad idea is better than no idea. Are there any other ideas?

Stop! said the woman with the dream.

That's it, she said, shaking her head with assurance. I don't want to live here, she added. However, before she could continue, I thanked her for sharing with us because, again, my purpose was to show them the techniques of dream interpretation and not to have a group therapy session.

## Dream example 6: don't take me

A 40-year-old female acquaintance recently approached me with a dream. She was currently going through a divorce and had two young children.

I dreamt that my husband came to my house with a pick-up truck, and he was towing a cement mixer, and three large big things, she said.

Become the three large big things, I said (because I'm attracted to inanimate objects in dreams and the bizarre).

What would they say? I said.

Like what? she said.

Listening and remembering carefully to exactly how she phrased it, I repeated, What would the three large big things say if they could speak? I said.

She paused. When people pause anything over about three seconds, I remind them not to think too hard. I encourage them to say just what first comes up. She had paused more than three seconds, so I said, Don't think too much. What would they say?

Don't take me, she said with life and meaning behind it so I did not ask her to repeat it. She then said it with real feeling.

What does that make you think about in your life? I asked.

Oh, my kids. They hate going with their father. And I feel so guilty.

In what way? I asked.

Oh, they don't want to go with him. At the same time, it's not just that they'd rather stay with me. They'd rather have us get back together but that's just not gonna happen. I can't tell them that.

Well, that's what I think one of your dream meanings might be, I said.

What about the feeling I had in the dream that after he visits me with these vehicles, he's gonna leave my house empty? I think it means I feel like he's cleaning me out, she added somewhat questioningly.

I affirmed the meaning she gave to her dream without hesitation, agreeing with Jung that it is her dream, her life, her interpretation. However, I did feel that she might ultimately benefit by becoming conscious of how her children's fantasies about reconciliation were on a collision course with her future plans.

## Dream example 7: move me

A 27-year-old woman, newly remarried, undergraduate came to my office for a dream interpretation session. She said she started college at 17 years old, had attended three different colleges, and was now in her 10th year of college studies. She said in her dream she was in an old house in a bad part of town with lots of old cars strewn about. She said her niece was in front of the house, and the niece was excited because Sam (the coed's ex-husband) was coming to visit. Next, she said, a large man came up and was collecting money. She said that she told him they (she and her niece) did not have any money. Behind the house, she said she then spied a kitten sitting really still.

At that point, I said, "Become the kitten. What would the kitten say to you?"

Move me, get me out of here, she said, and giggled.

I said, What does that make you think about? You giggled.

She said without hesitation, My family. They drive me crazy.

I immediately thought about Hartmann's theory (Chapter 1) that dreams contextualize emotions. In this dream, I thought about her car metaphor (old cars strewn about) and even the subtle statement of, "they *drive* me crazy." But my intuition told me that this was perhaps the manifest meaning of the dream, in part because her association between the kitten and her family came so easily. So I returned to her original dream statement.

Say what the kitten said again, I said.

She said, Move me and get me out of here!

I said, What does that make you think about in your present life?

She paused and said, I don't know. She then paused again looking thoughtful.

After a pause of about 20–30 seconds, she said, I hold myself back.

How? I asked.

In so many ways, she said. I make all kinds of excuses so I won't meet new people. I keep myself full of anxiety. I make things up to block myself from doing new things. I really believe in spirits and possibilities but I hold myself back.

She paused again and then said, "I've been thinking about this for a while. I use to blame my parents for delaying me in school and holding me back but I realize I am the one holding myself back."

I then told her that dreams probably have many meanings but I found it meaningful that after only about 5 minutes in my office, we were talking about holding herself back. I told her I just could not believe that was random or accidental. I reasoned that she probably had just been given a letter from herself to herself (like the sixteenth-century dream interpreter Almori) and she was now fulfilling her responsibility (like the 21st century sleep expert Hartmann) by examining the meanings of her dream. I also told her that it is common for psychologists to believe that awareness, per se, is curative, and I also explained that her awareness of these issues would undoubtedly help her in her journey to finish school and stop holding herself back from new people and things that she wanted to do.

## Dream example 8: stuck in time and place

Liz [not her real name] is a 21-year-old daughter of one of my neighbor's friends. She had heard about my dream work and wanted to try it out. We sat outside on my front porch and she began right away without any prompting.

"This dream is really long so cut me off," she said. "I start by going to a large building. I run into a tour guide, an older man, and he introduces himself as my tour guide. First, we go into a room with one giant fan and several smaller fans in the walls. All of the fans are frozen with ice on them." I stopped her.

Become the frozen fans. What would they say to you?

Stuck in time or place, she said with little hesitation.

What does that phrase mean to you? I asked.

I'm not moving, she said.

What do you mean? I asked.

I feel like I've already spent too much time in school. I've changed majors three times. I wish I could go back in time five years. I could even deal with my family better.

I said, How?

I've got nine siblings. There have always been these alliances between the siblings. It's like we need to form alliances to defend ourselves from the other siblings and from our parents. But I never did. I'm on the outside. So they call me asking me to fix things for them and to help them. But they are all stubborn. They all live in the past. They are all stuck in their ways. I'm the only one in school right now. My issue with all of them is their rigidity. But it worries me, and I keep things in. I don't make other people help me like they do. I think I should be able to fix my own problems. But I'm perfectionistic too so I have a lot to live up to.

She kept on talking freely. I nodded and gave her nonverbal support. After a few minutes, she seemed to wind down. I reinforced her search for her own identity outside of being one of 10 children. And I told her some of my dream interpretation techniques. I also told her that at 21 years old, she actually had not spent that much time in school and to go easier on herself in that regard. It seemed to me she left rather happily.

## Dream example 9: some dreams are wish-fulfilling

One of my research assistants came to me with a dream she wanted interpreted. She was 25 years old and engaged to be married. She said she dreamt that her fiancé's mother was sick and died from cancer. She said in reality "she's healthy as a horse."

This seemed like a classic mother-in-law issue, so I raised the possibility with her that the dream might conceal a hidden wish, but this is how I deflected resistance at the outset:

Freud said *all* dreams are wish-fulfilling but I don't believe that. But I do believe some dreams are wish-fulfilling, and I have a feeling this might be one of them. Is there some way you would like to be rid of your future mother-in-law? I said.

I really like her. She talks a ton but she's generous, loving, and has a great heart, she said.

How *might* it be nice to be rid of her? I asked again.

I guess I'd like to show his side of the family that I can be strong like her. I can plan things just like her. She's a wedding planner … she said, as I interrupted.

As a profession? I asked.

Yes, she's a professional wedding planner, and she's planned this huge reception for our wedding, and I don't want a huge reception. She's also planned a huge wedding, which we don't really want but we'll do it for

her, but we both don't want a huge wedding or a huge reception. Yet she keeps telling me it's my day, it's my day.

And then you dream that she dies, I said. Why are dreams so mysterious? I asked facetiously, and we both laughed.

As I review my own techniques, I think back to what Carl Jung said about dream interpretation: Learn as much as you can about dream interpretation and then forget it. I know that I choose eclectically among the various ideas of Freud, Jung, Perls, and others. I choose what seems to fit the occasion. I rely heavily on my intuition. I try to remember that there's no single hidden meaning every time. I won't always be successful. I won't always have a very satisfied person leave my office. But I do recognize that it's fairly easy to hit some issue or unfinished business in a dream. And very often, I do have people leave my office who believe that I have raised a singularly important piece of unfinished business. I usually reinforce the notion that awareness, per se, is curative, and advise them to seek professional help if they ever feel overwhelmed, and I tell them I can refer someone really good if they feel they ever need it.

In this dream, my intuition immediately suggested the classic Freudian wish-fulfilling dream notion, and it appeared to work. She was able to voice some conscious concerns that she said she had shared with no one other than her future husband. I also told her that, by voicing those concerns through her dreams and by sharing them, she had not actually settled her issues with her future mother-in-law but she was on the road to settling them. I told her I believed that she was now, at least theoretically, less likely to have an accident involving her mother-in-law where her mother-in-law would be hurt. Again, we laughed.

## Dream example 10: I can help

A man in his early thirties shared this dream in one of my dream workshops. He first told us that he had trained as a nurse in the army and had returned to college to get his prerequisites for dental school. He then told us that this dream recurred with great regularity when he was younger (around 15 years old) but that he occasionally still had it. In his dream, he was on Gilligan's Island with the regular cast. He said Santa Claus' sleigh with Santa's toy bag inside would suddenly land in the midst of the group. He said that was essentially the whole dream.

Become Santa's toy bag, I said.

I can help, he said rather quietly, because, in part, of the ambient noise of the large group. I also had the feeling that he was reluctant to say it loudly, I said:

Say it louder!

He said, I CAN HELP!

I said, How does that fit your life?

Without pausing, he almost sheepishly said: It's my life's theme.

How? I asked.

Without hesitation, he related that since very early on in his family, he took on the role of a helper. He then made it his profession, first becoming a medical technician and then joining the army and becoming a nurse. He then said it was a role that he did not always cherish.

Can you think of ways it has been both a blessing and a curse? I asked.

He said, Easily.

I stopped my questions and suggested to the attendees of the workshop that this is where therapy might begin, that is, for him it might begin with his recognition that helping others has been both beneficial but it appears he now has some idea that the role might have also been at some psychological cost.

## Dream example 11: don't lean on me!

One of my former students requested a dream interpretation session. She was 23 years old, single, currently in a PhD program in electrical engineering. When I asked her about her dream life, she said she slept well and that she enjoyed most all of her dreams. When I asked for a sample of her dreams, she said that she had a "scary" one about two nights ago. She said that she was walking on campus beside a student residence hall when she saw another student on the roof falling to the ground. I stopped her right there from telling me anything else about her dream.

"Become the roof of the building," I said. "What would the roof of building say to you standing there on the ground?"

"The building would say …" she said, but I interrupted before she could finish. I said, "Be the building, speak as the building might. What would the building say to you?" The latter process comes from Perls, and it helps for the person to fully identify with all of the parts of the dream, both animate and inanimate, consistent with the notion that every part of the dream is a projection of the dreamer.

Don't lean too much on the railing, she said.

I said, "Say that again." She repeated, "Don't lean too much." This technique is again consistent with Perls, who wanted the dreamer to fully own and identify with a projection.

However, before my attempt at an interpretation, I told her the story about Almori (Chapter 3), the Jewish rabbi and philosopher, who thought that each dream was like a letter sent to oneself. I also told her to consider this phrase, "Don't lean too much," like short letter to herself from herself, albeit a letter from her unconscious self to her conscious self. And then I began to help her interpret this message.

Think of this message as a metaphor for your life, I said. How can you relate it to something in your life?

Rather quickly she said, "I have a bad habit of dwelling on bad things, even minor little things. I will ruin a couple of days by ruminating about something."

I then pointed out that we had spent barely 10 min to get to this point where she readily admitted that this was an issue for her. I explained that I saw this as the important value of dream interpretation had this been a real psychotherapy session. In just a very short time, we had come upon an important psychological issue in her current life. I also told her that there was an irony in my technique in that I really did not care about dreams or a dream's story. What I really cared about was using dreams as a vehicle for getting to psychological issues quickly and a bit deceptively, as people most readily talk about their dreams, but often hesitate if you ask them, to tell you about their unconscious psychological problems.

In a full dream interpretation therapy session, I would have then spent the rest of our therapy hour further examining her problems with ruminating on troublesome matters. That free association process would be consistent with Jung's notion that there is often a deep wisdom within dreams, and it is best to trust that wisdom. Again, in just a few minutes, the dream led us to this issue. I trust in that path, as did Jung.

However, since we were just indulging in a single, short dream interpretation session, I decided to pursue another dream to see what might arise. Consistent with Perls' hierarchy of unfinished business, I wondered what else might be revealed. So I asked her if she had ever had a repeating dream theme.

She said, "When I was about 7 years old, I kept dreaming that my school's principal stabbed my father. And he would be the last person that I would want stabbed!" She had stated the last phrase with great emphasis. I could have asked her to become the knife (since like Perls) I preferred

inanimate dream parts to the animate, but I did not. I could have also asked her to become the principal or her father. However, I was so struck by the emphasis of her father *being the last person to be stabbed* that I could not resist a Freudian interpretation that (almost) every dream has an element of wish fulfillment.

Is there anything about your father that you would wish him harm? I said.

No, I love him. He's a wonderful father, she said.

At that point, I decided to step outside the interpretation process, and I told her of two paths that I might take as a therapist. Fritz Perls might have said that even if the therapist suspected that there were some latent negative feelings in this daughter about her father, it was not yet time to bring it up. If the therapist was correct, Perls might have said that it might come to consciousness later in therapy, but now was not the right time. Or he might have said the therapist's hunch was simply wrong. However, Freud might have been more direct, and he might have confronted the patient with the idea that the patient was resisting some deep-seated unconscious hostility of the daughter about her father. The notion of a latent hostile feeling for the patient's father came to me because of her strong and sudden emotional emphasis that "… *he would be the last person that I would want stabbed!*" I told her that a Freudian therapist might have suspected the operation of the ego defense of *reaction formation*, where a patient does or says the opposite of their true or unconscious feeling in order to counter the anxiety that arises from it. Further, I told her that what might signal the presence of reaction formation was the strength and vociferousness of the statement. I also told her of Freud's interest in the way language is stated. In this case, she said he was the last person that she wanted stabbed. Not the last person that would *not* be stabbed, but the last person *to be* stabbed. Of course, it would be unethical to pursue a therapist's hunch about latent hostility where none actually exists. The issue of therapists projecting their own issues upon their patients is, of course, a dangerous and thorny problem, which is undoubtedly why nearly all psychotherapy training programs require the budding therapist to simultaneously engage in therapy themselves.

## Dream example 12: do not drink it!

Another of my former students, 23 years old, single, had an undergraduate major in international relations, and she was currently pursuing an MA in archaeology. When asked about her dream life, she said that she slept well

and had recurring dreams of falling and being chased (Note: the two most common themes for many people). She also reported a most vivid recent dream where she was in a forest with some friends. She said that they came upon an "indigenous community" of people in their traditional tribal clothing. She said they offered them drinks of blood in bamboo "glasses."

Become the bamboo glasses [I was careful to use her words, as I would have used the word 'cups'], I said. What would the glasses say to Mary [not her real name]?

She said, Do not drink it, Mary!

I said, What would you say back?

But everyone is drinking it, she replied.

I then asked her what, if anything, she might relate this conversation to in her waking life. Almost without hesitation she said that her undergraduate major was in international relations, which she said her parents and family were pleased about. However, more recently she decided to obtain a graduate degree in archaeology. Because she found archaeology so different and provocative from her previous major, she felt like she was doing something almost forbidden or dangerous, like drinking blood.

We wrapped the session quickly as I explained that dreams, beyond question, have multiple meanings, but that it was very interesting that she so quickly related this provocative blood-drinking aspect of her dream to her switching of academic interests.

## Dream example 13: I can't trust dead people

Another of my former students was a 20-year old student who was studying for a Masters in Technology with the hopes of getting a job in electrical engineering. When I asked about his dream life, he instead told me the story of his upbringing, particularly of having to switch schools six times in a short period of time. He said the constant switching made him more introverted than he'd like to be, and it made it much more difficult to have good friends. He said that he had been recording his dreams since he had volunteered for this dream interpretation session. He then related a dream about people who were infected with parasites such that they were actually dead.

Become the parasites in the dream. What would they say to you? I said.

He said, You can't trust us.

What does that make you think about in your waking life? How might that apply? I said.

After a short pause, he said that it made him think about how lonely he often felt growing up. He added that over just the past few years, he felt like he was coming out of his shell. However, he said that he realized he could not trust everyone who "appeared" friendly. Thus, these people seemed like parasites, and they often turned out not to be good or "real" friends. At this point, I explained how his dream quickly managed to raise an important psychological issue for him. I further encouraged him to get into psychotherapy if he wanted to pursue it.

## Dream example 14: you are welcome here!

Another of my former students requested a dream interpretation session. She was 24 years old, single, and had a BA in psychology and an MS in cognitive science. She was currently employed in a high tech firm. When I asked her about her dream life, she said that she dreamt most often about buildings.

Become the building. What would you say to yourself? I said.

You are welcome here, she said.

What does that make you think about in your life? I said.

She said almost immediately that she stays indoors a lot and that it reminded her of her happy childhood when she used to play with her friends in her childhood home near the ocean. She went on to add that she liked a very regular routine for her daily life and that she enjoyed her "things," sentimental, silly, and mundane.

But I think I should 'step out more.' I think it's an aspect of my disposition that I should I keep myself sheltered, both physically and psychologically. I think I could 'unlock' a lot more of my potential if I did step out more, she said.

She went into this monologue without any further prompting. I was pleasantly surprised that this whole discussion came about from a seemingly simple "building" dream. It also made me think of Hartmann's (Chapter 1) contention that dreams and their contents contextualize emotions. Further, it made me think of Freud's idea about language and how it may reveal underlying unconscious issues, such as his emphasis of the meanings of slips of the tongue and the hidden motivations behind humor and jokes. Freud believed that words were often chosen by unconscious psychodynamic conflicts, rather than a simple relationship of words with their objects. In this dream interpretation session, it was fascinating to me that she arrived at an interpretation regarding an undeveloped aspect of her personality using

building terms like "sheltered," "unlock," and "step out." It could be argued that there existed an underlying "architecture" of meaning in her words reflecting both the literal (*manifest* meaning in Freudian terminology) and figurative (*latent* meaning).

## Dream example 14: don't come here

An unmarried 24-year-old male graduate student, working on a PhD in mechanical engineering, requested a dream interpretation session because of a persistent recurring theme of a postapocalyptic world. He reported that he always saw himself wandering in a mall after an apocalypse. I stopped his narrative as soon as I heard this basic premise.

Become the building. What would you say to yourself? I said.

He replied, Don't come here. It's not a good place to be for you right now.

How might that apply to your waking life metaphorically? I said.

He paused and then said that he has suffered for a few years from bouts of depression and anxiety, during which he would find himself frustrated with even the smallest of tasks. He then added that he recently had received a very prestigious scholarship to which he thought "Meh. No big deal." He said he could not even enjoy small or large things that normally would give him great pleasure. Then, as if he was struck by a sudden insight, he said that his earlier reply, "Don't come here," might apply to his depressive ruminations. I again explained how the philosopher Almori thought that dreams were like letters sent to ourselves.

He paused thoughtfully, and then said, "In that case, I think I am telling myself do not come to this place where I ruminate and where I overthink things until I feel paralyzed." I then explained that our session was over, and I advised him to seek out a psychotherapist to help him with this issue. But I also told him that many therapies operate on the premise that awareness per se is curative and that he might find solutions to this issue now that he had brought it to awareness.

## Dream example 15: don't lose me!

A 33-year-old married woman with two young children volunteered for a dream session. She learned about my technique from a YouTube video where I was interviewed about sleep and dreams. She was particularly interested in a recurring dream that she had about losing her teeth. As I

noted earlier in this book, it is an ancient dream noted thousands of years ago, and it appears in many ancient religious texts.

So tell me about this teeth dream that you keep having, I said.

She said that her teeth would fall out of her mouth and get caught against her tongue which extended well beyond her mouth. She said that she kept trying to grab her teeth together so that she could visit a dentist.

Become your teeth. What would they say to you?

She said, Help me! Don't lose me!

I then asked her about how that might fit some issue in her life, either the past our current. Quickly, she told me it related to her current three businesses. Although her husband was a successful government employee, she said since she was a little girl she had always been an independent entrepreneur. However, during the current pandemic, her businesses were floundering, and she was worried about all three failing.

But I had this teeth dream before the pandemic and before when my businesses were doing well, she said.

At this point I told her that dreams clearly have more than one meaning, as Sigmund Freud had noted over 120 years ago. I told her about the Freudian notion of *condensation* where more than one psychological issue may be represented by a single dream image. Thus, there were undoubtedly other meanings of the dream and perhaps changing meanings throughout her lifetime although the dream theme was constant. However, at this point in time, this may be one of its meanings. And once again, I reminded her (like I do all of my dreamers) that I am not really interested in dreams! Further, *the* real meaning of her teeth dream could never be known. I use the dreams to get at unconscious issues. And like Fritz Perls, I know that people have a hierarchy of unfinished "businesses." So even if I can hit in the top 10 of someone's unfinished business, part of their personality has been regained. I believe in Perls' idea that each time one understands even 1 bit of a dream, they regain some bit of their full potential and those potentials will accumulate.

I also tell my dreamers that a dream is like a police vehicle with its lights flashing and sirens blaring. It can cut through the traffic (conscious issues and irrelevant topics) easily as it speeds toward an accident (important unfinished psychological issues). Thus, it is not *the* meaning of a dream or the logic or storyline of dream that I am interested in: I use the dream simply as a vehicle to get at these unfinished businesses so that therapy can begin.

## Dream example 16: hold tight!

Another PhD candidate (in the Humanities), 28-years-old and single, came to me for a dream session. She told me that she wanted to learn a meaning for her recurring dream that she had since childhood. It was that she was falling from a high place.

Become the high place. What would it say to you as you are falling? I said.

She said, Don't fall. Hold tight!

What does that make you think about in your real life? I said.

I want to feel like I have a stable position, especially financially, she said.

Do you think that's been a longstanding wish in your life? I said.

She then related that she was the only daughter of a government employee with a good and stable job. She said her mother had always been a housewife. Both of her father's parents were school teachers and that her father had grown up in a middleclass family, but that he was overly concerned with the household money he gave his wife and the school allowance he gave his daughter. They both had to account for nearly every penny, and at the end of each week they both had to account for how they spent the money and how much they had spent. She said that she could never spend the money on anything that might be deemed "frivolous."

I understand saving money is important, but sometimes shouldn't spending a little money on lighthearted or silly things be OK? she asked me in a way that seemed more of a statement than a question. Of course, I agreed with her.

I then told her that we had just spent less than 5 min talking about her dream, and yet we had come up with a topic that was obviously important to her, and it had been for a very long time. I told her that this where therapy would start and the dream interpretation part was over.

But what about the rest of my dream? she asked.

"We quickly came up with a psychological issue that seems very important to you," I said. "If I asked any more about your dream, I would be like a voyeur rather than a therapist. I'd be wasting your time and mine with simple storytelling. Yes, dreams are fascinating, meaningful, and full of surprises. But that's not why we are here. We are here to uncover psychological issues that may be important to you. We are not here to be entertained by stories, as fascinating as they may be."

## Principle 6: listen carefully and be patient

A dear older colleague and good friend for over 2 decades said he would write a quote for the cover of my dream book. He said it would say: "This is a good book but the techniques only work for Fred." He had seen me use these dream techniques successfully, and he said always he fails miserably at it. I had heard him try it a couple of times in my presence. I thought that he did not pause long enough after he asked them to think about what their dream script statement made them think of in their lives. If you knew this wonderful fellow, you would see the irony, because he is famous for his long and thoughtful pauses. So I encourage you to be patient. Patience in therapy was one of the first important techniques that I was taught. Try to be comfortable with pregnant pauses or at least try to become more comfortable than your patient with pregnant pauses. Allow your patient to be the first to break pauses in your conversations.

Aristotle (1952) reflected, nearly 2400 years ago, on what it takes to be an interpreter of dreams. He wrote:

> *The most skillful interpreter of dreams is he [sic] who has the faculty of observing resemblances. Anyone may interpret dreams which are vivid and plain. But speaking of 'resemblances,' I mean that dream presentations are analogous to the forms reflected in water, as indeed we have already stated. In the latter case, if the motion in the water be great, the reflexion has no semblance to its original nor do the forms resemble the real objects. Skillful indeed, would he be in interpreting such reflexions who could rapidly discern, and at a glance comprehend, the scattered and distorted fragments of such forms, so as to perceive that one of them represents a man, or a horse, or anything whatever. Accordingly, in the other case also, in a similar way, some such thing as this [blurred image] is all that a dream amounts to; for the internal movement effaces the clearness of the dream.*
>
> **Aristotle (1952, p. 709)**

I think that a skillful interpreter of dreams is one who listens carefully and is patient. I think there is a wonderful metaphor for dream interpretation in the book *Siddhartha* by Hermann Hesse (1951); which Perls also mentions in *Gestalt Therapy Verbatim*. Vasudeva, the ferryman, tells the hero of the story, Siddhartha, to listen to the river (which may be a metaphor for a dream):

You will learn it, said Vasudeva, but not from me. The river has taught me to listen; you will learn from it, too. The river knows everything; one can learn everything from it. You have already learned from the river that it is good to strive downwards, to sink, to seek the depths. The rich and

distinguished Siddhartha will become a rower; Siddhartha the learned Brahmin will become a ferryman. You have also learned this from the river. You will learn the other thing, too.

After a long pause, Siddhartha said: "What other thing, Vasudeva?"

> *Vasudeva rose. "It has grown late," he said, "let us go to bed. I cannot tell you what the other thing is, my friend. You will find out, perhaps you already know. I am not a learned man; I do not know how to talk or think. I only know how to listen and be devout; otherwise I have learned nothing. If I could talk and teach, I would perhaps be a teacher, but as it is I am only a ferryman and it is my task to take people across this river. I have taken thousands of people across and to all of them my river has been nothing but a hindrance on their journey … however, amongst the thousands there have been a few, four or five, to whom the river was not an obstacle. They have heard its voice and listened to it, and the river has become holy to them, as it has to me. Let us now go to bed, Siddhartha"*
>
> **Hesse (1951, p. 68)**

In summary, I suggest that you try to feel comfortable with even a small success. Do not worry too much about trying to solve all of other people's major unfinished issues. Try, instead, to help the dreamer understand a small part. As Perls (1969) wrote:

> *And if you understand the meaning of each time you identify with some bit of the dream, each time you translate an it into an I, you increase in vitality and in your potential … you get, let's say, a ten-thousandth of your potential back, and it will accumulate. Each time you can integrate something it gives you a better platform, where again you can facilitate your development, your integration.*
>
> **Perls (1969, p. 71)**

## Summary

1. Dreams form a hierarchy of unfinished business.
2. People have a tendency to avoid and alienate the holes in their personalities despite their compensating need for wholeness. Watch out for these holes in dreams.
3. Have the dreamer become part of the dream and write a script. I favor inanimate objects over animate objects in the dream.
4. Listen carefully to the language of the dreamer. Try not to paraphrase their dream projected phrases. Try to repeat their words exactly.

5. Everything in the dream is a projected aspect of the dreamer. However, unfinished psychological issues can be raised by having a person create a script with anything. This technique can also be used with people who say they do not dream.
6. Listen carefully and be patient.

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# CHAPTER 11

# Pandemic sleep and dreams

*I trembling waked, and for a season after*
*Could not believe but that I was in hell,*
*Such terrible impression made my dream.*

*-Shakespeare,* King Richard the Third, *(Act 1, Scene 4)*

*Hast thou nothing to do with that just man; for I have suffered many things this day in a dream because of him.*

*-Matthew 27:19, From the wife of Pontius Pilate to her husband about Jesus*

As noted earlier, Sigmund Freud (1900) claimed that *all* dreams fulfilled wishes. After WWI, Freud (1920) saw veterans with horrible war stories and terrible nightmares. He subsequently revised his wish-fulfillment hypothesis and believed, indeed, that traumatic dreams were replaying traumatic events in people's lives. In other patients, he also noted that these repeating nightmares might result from early childhood sexual trauma. Freud still took a rather positive spin on these repeating traumatic dreams as he postulated that their recurrence might allow one's ego to eventually gain mastery over the event. Carl Jung (1964) also thought that traumatic dreams might be compensatory, allowing unconscious issues and repressed archetypes like the *shadow* to come to consciousness and be incorporated by the force of one's *self* archetype. This process, as noted earlier, called *individuation* was not an easy process. He once typified individuation as the patient being forged between the hammer and the anvil. Obviously, as he said, this was a challenge for the brave and not the faint of heart. Thus, according to Jung, nightmares may help us to confront issues such as interpersonal conflict, loss, sickness, and death and subsequently may help us to better cope with life's quotidian challenges.

Hartmann (1998), as noted in Chapter 1, thought dreams contextualized emotions. It is not conflict, loss, or sickness, per se that creates a nightmare, but it is the emotions that are aroused when we are confronted with these issues that disturb us. According to Hartmann, these primary emotions are vulnerability, uncertainty, and fear. He also thought that nightmares might occur more often in people with "thin boundaries", and

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by this he meant "a lack of separation between areas and processes in the mind, and also a lack of walls and defense. Everything seems to 'get though' to people with thin boundaries" (Hartmann, 1998, p. 49). This phenomenon might help to explain why not every who is exposed to a traumatic event develops PTSD, but for those who do, one of their chief symptoms is terrible nightmares.

Psychoanalyst Ernest Jones (1931), a close friend and collaborator with Sigmund Freud, wrote a book on nightmares, and in many ways, he agreed with Hartmann that people who experience recurring nightmares most likely had a predisposition to do so. He completely dismissed the ancient notion that nightmares were caused by indigestion, as posited by the Greek physician Galen in the second century AD, and later by German Psychologist Wilhelm Wundt in 1894. More recently, psychologist Deidre Barrett (2001), in a book on trauma and dreams, also noted that recurring dreams, nightmares, and sleep disturbances are often the result of traumas, both natural catastrophes like earthquakes and floods, and those caused by other people (rape, incest, and torture). She also presciently noted that "Dreams constitute a unique window on trauma and its effects. … This view can be both diagnostic and therapeutic" (Barrett, 2001, p. 1).

## The COVID-19 pandemic, sleep, and dreams

COVID-19 is a respiratory illness caused by the coronavirus SARS-CoV-2. As of this writing, it has infected over 570 million people world-wide and caused over six million deaths. Just 2 years 18 months ago, these figures were 20 million infected people world-wide and 725,000 deaths, which is a staggering increase. Its effects have not only been social, financial, physical, medical, and neurological, including (of course) death, long-term disability, anosmia (lack of smell), dysosmia (any disruption in olfaction), and memory and learning impairments, but also major psychological issues, like suicide, depression, and acute and chronic anxiety. These sequelae of the pandemic come not only from the direct effects of the pandemic upon people's health, but also from necessary containment measures, such as lockdowns, school and business closings, travel restrictions, and vaccination fears. One heretofore neglected aspect of the pandemic has been its effects upon sleep and dreams. Fortunately, a raft of recent empirical studies has shown the pandemic's effect on the quality and nature of sleep and dreams, particularly dream content.

The aforementioned sleep researcher Barrett (2020) conducted an online study of 2888 dreamers and compared them to previous collected dreams

before the onset of the pandemic. Barrett examined these written dreams as a function of nine linguistic categories: positive and negative emotions, anxiety, anger, sadness, biological processes (eating, blood, pain), body parts, health, and death (bury, coffin, and dying). She also analyzed these categories by gender. Interestingly (and perhaps sadly) for the women, there were changes in all nine dream categories. As a result of the pandemic (presumably), in women she found statistically significant fewer positive emotions in their dreams, an increase in negative themes, more anxious concerns, more themes of anger and hatred, and near doubling of sad dreams, more dreams about biological processes, more concerns about one's body, a near doubling of health concerns like being sick or coughing, and a tripling of death-related themes. The latter finding is consistent with a dream study I did with one of my undergraduate students of 14 terminally ill cancer patients (Coolidge & Fish, 1983). We similarly found a significant doubling of death themes compared to a control group. Interestingly, we also found that death was far more often projected onto others in the dreams rather than oneself. Combined these two studies demonstrate that threatening external conditions (disease, death) do increase themes of death and dying in dreams, and they further support the *continuity hypothesis* that dreams often reflect not only one's waking experiences but also the emotional aspects of these activities. It also substantiates the well documented finding that dreams play a major role in processing emotions and in emotional regulation (e.g., Revonsuo, 2000).

In men's dreams, Barrett (2020) found similar statistically significant decreases in positive emotions, increases in negative emotions, more anxiety-related themes, and increases in biological processes. Similar to women's dreams, there was also a doubling of health concerns, and a tripling of death-related themes. However, men did not seem to experience a difference between prepandemic and pandemic themes of anger, sadness, or their bodily concerns. Barrett interpreted these gender differences and the seemingly lesser impact upon men's dream content than women's upon the inordinate stress the pandemic might uniquely place upon women. For example, women are at a greater risk of being victims of domestic violence, disadvantaged to sexual/reproductive health services, and more affected by job losses in part because of a greater proportion of unsecure job contracts. Women also have been shown to be tasked with more responsibility for childcare and eldercare than men, and these specific care services were also particularly challenged during the pandemic.

Kilius et al. (2021) confirmed Barrett's finding with adult women in a small sample ($N = 70$; $n = 51$ women, $n = 19$ men) of Canadian college

students. They found that female college students reported significantly more nightmares than male college students, their dreams were more likely to be hostile than friendly, and more likely to be the recipients of aggression in their dreams rather than being instigators. The authors also found that 81% of their sample reported that their dreams had changed moderately or greatly as a result of the pandemic. Kilius et al. also interpreted their results in terms of the continuity hypothesis and in light of Revonsuo's (2000) *threat simulation hypothesis* where the evolutionary value of threatening dreams lies in their value in priming and preparation for subsequent waking threats. It is also fascinating to observe that negative events in all dreams, prepandemic and during the pandemic, have much greater negative content than positive content while the opposite is true of reports of waking life (Kilius et al.,2021, p. 2). As noted in Chapter 2, Revonsuo and colleagues (Revonsuo et al., 2015) and others (Franklin & Zyphur, 2005) expanded these ideas about threat simulations during dreams to social situations, both positive and negative, where dreaming also simulates social interactions, skills, and bonds that may be encountered while awake. Kilius et al. also noted the evolutionary value of sleep disruptions, insomnia, and greater nighttime vigilance to a "fear-based survival mechanism" (Kilius et al.,2021, p. 7) where the severity of these sleep disruptions might depend upon individual differences in the ability to process emotions, especially during this pandemic.

Parrello et al. (2021) also substantiated these sleep and dream disruptions in an Italian sample ($N = 235$) of adolescents (girls, $n = 172$, boys, $n = 63$; ages 12–18 years old), who were recruited online during Italy's "hardest phase" of the pandemic. They recruited only those who self-reported that they were obeying the quarantine measures. The authors noted that during this time their mass media constantly relayed the numbers of new people contracting the virus and those who died from it. Further, the authors also noted whether the adolescents had known someone who was infected by the virus or knew someone who died from it. As expected, those adolescents who knew someone affected by the virus were the most negatively impacted with significantly higher rates of anxiety, anger, and sadness in their dreams, more nightmares, and reportedly longer dreams. They also found that the adolescent girls' dreams contained more negative emotional content than the boys'. The authors noted that "… the element of the pandemic that adolescents unconscious seems to have picked out the most is the invisible and pervasive threat of the virus: places are not safe, routines and relationships are upset, adults are vulnerable and are not a source of protection, and, indeed, sometimes adolescents are required to protect

them" (Parrello et al., 2021, p. 18). It is important to add that a current world-wide estimate is over five million children have lost a caretaker to the virus. Finally, the authors observed that the social distancing and isolation virus containment measures may particularly affect adolescents because their peers are a critical developmental aspect of that phase of life.

In another recent and large study of Italians' sleep and dreams during their COVID-19 country-wide lockdown, Gorgoni et al. (2021) analyzed the sleep and dream report of 1236 adults (ages 18–88 years old; women, $n = 785$; men, $n = 451$). Almost all of the aforementioned studies of sleep and dream changes as a function of the virus and its containment measures were corroborated by Gorgoni et al. The negative affects upon sleep and dreams were significantly greater for women than men, and preexisting psychopathology (e.g., anxiety and depression) and people with prior sleep problems appeared to have a worse impact on those dreamers. Overall, about 60% of the participants reported poor sleep quality (a doubling prior to the pandemic), about 72% reported current anxiety (seven times the prevalence prior to the pandemic), and about 35% reported depressive symptomatology (also seven times the prevalence prior to the pandemic). They also observed that fear was the predominant negative emotion found in the dreams. They also found a general increase in the reported vividness and bizarreness of dreams, and interestingly an increase dream frequency and length. The latter changes Gorgoni et al. tentatively attributed to the *salience hypothesis* (e.g., Cohen & MacNeilage, 1974), which proposes that the greater subjective impact (i.e., salience) of a dream, the greater the recall frequency. This phenomenon is also entirely consistent with learning and memory theory that postulates the emotional valence of any thought, during wakefulness or sleep, affects short- and long-term recall, i.e., the greater the emotional valence, the better the recall (Coolidge, 2019).

Finally, in the largest pandemic sleep and dream study (online) to date, Pesonen et al. (2020) analyzed the sleep or dreams of 4275 people ($M$ age = 42.6 years, age range 10–99 years) who were in the sixth week of a lockdown. Of these participants, 3464 reported only about their sleep and 811 reported on their dreams. Their findings confirmed most of the previously mentioned studies. Interestingly, 54% of the sample reported sleeping more during the pandemic, but waking up about 29% more often. Nightmares were reported to increase by about 26%. They also conducted a novel dream analysis by using the content of the dreams into lists of related words and then applying a cluster analysis, which resulted in 33 clusters. Of these, 20 clusters (61%) were deemed "bad dream"

clusters and of those 55% contained content that was specific to the pandemic. These bad dream themes included worries about the elderly, managing the virus, and concerns about social distancing. A majority of the sleepers (56%) reported moderate to high increases in stress, and more women reported being stressed than men. Pesonen et al. interpreted their results in terms of Hartmann's (Chapter 1) hypothesis that nightmares (in particular) contextualize emotions, and they concluded that their results were also consistent with threat simulation theory and the dream continuity hypothesis.

In summary, it is fascinating to observe that negative events in all dreams, prepandemic and during the pandemic, have much greater negative content than positive content while it seems that the opposite is true of reports of waking life. It may be that ego defenses available while we are awake are not the same that are available to us while we sleep. On a positive note, however, it may be that the evolutionary value of threatening and negative dreams lies in their value in priming us (preparation) for subsequent waking threats, whether the threats come from natural disasters like earthquakes and volcanic eruptions, biological disasters like the present pandemic, or human-caused catastrophes like interpersonal violence and war. Finally, it might be helpful if we are all reminded that our dreams, no matter how negative, bizarre, and threatening that they may be, could actually aid us in dealing with problems big and small in our waking lives, like contentious people, viruses, violence, and war.

## Summary

1. Dreams during the pandemic support the continuity hypothesis: Dreams reflect not only one's waking experiences, but also the emotional aspects of these activities.
2. Pandemic dreams also substantiate the finding that dreams play a major role in processing emotions and in the regulation of emotions.
3. Pandemic dreams support the salience hypothesis that proposes that the greater subjective impact of a dream, the greater the recall frequency.
4. Sleep changes during the pandemic may include more sleep, less sleep, more awakenings, and more dream reports coupled with better dream recall.
5. Pandemic dreams appear to have more negative theme, fewer positive themes, more nightmares, more anxiety-related themes, and more bizarre thoughts and images.

**6.** One positive notion about pandemic dreams from an evolutionary perspective is that they may help us simulate threats, either social or natural, that may subsequently help us deal more effectively with the challenges of waking life.

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# THE SCIENCE OF DREAM INTERPRETATION

**Frederick L. Coolidge**

Is it possible to interpret dreams? Do dreams have meanings? *The Science of Dream Interpretation* answers these questions and more by presenting a scientific, historic, and psychological account of dream interpretation. Written by Professor Frederick L. Coolidge, this book introduces the biological and evolutionary foundations of sleep, dreams, and dream interpretation. Divided into six distinct sections, this book begins by introducing the reader to the theories of dream interpretation, establishing that dreams have great meaning and value. The next section reviews the physiological and evolutionary reasons for sleep and dreaming. The third section provides an overview of the role of dreams and dream interpretation throughout history including the cultural and religious significance of dreams. This section is followed by a discussion on how dreams interrupt sleep, including issues of insomnia, sleep walking, and more. The next few sections present the three most influential dream theorists of the 20th century including a detailed review of their theories (Sigmund Freud, Carl Jung, and Fritz Perls). The final section explains how dreams may be used to extract personal meanings and used in psychotherapy, including case examples from actual psychotherapy sessions of the techniques used to interpret dreams.

**Key Features**

- Presents the evolutionary history of sleep and dreams
- Reviews the historical and cultural significance of sleep and dreams
- Examines common and uncommon sleep and dream problems such as insomnia, sleep walking, and REM sleep disorder
- Discusses psychotherapeutic techniques of Sigmund Freud, Carl Jung, and Fritz Perls in relation to dream psychology
- Includes actual case examples from psychotherapy sessions

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